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THE
VOYAGE OF H.M.S. CHALLENGER.

ZOOLOGY—VOL. IX.

P L A T E S.

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REPORT
ON THE
SCIENTIFIC RESULTS
OF THE
VOYAGE OF H.M.S. CHALLENGER

DURING THE YEARS 1873-76

UNDER THE COMMAND OF
CAPTAIN GEORGE S. NARES, R.N., F.R.S.
AND
CAPTAIN FRANK TOURLE THOMSON, R.N.

PREPARED UNDER THE SUPERINTENDENCE OF
THE LATE
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REGIUS PROFESSOR OF NATURAL HISTORY IN THE UNIVERSITY OF EDINBURGH
DIRECTOR OF THE CIVILIAN SCIENTIFIC STAFF ON BOARD

AND NOW OF
JOHN MURRAY, F.R.S.E.
ONE OF THE NATURALISTS OF THE EXPEDITION

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1884

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PLATE I.



1883

PLATE I.

NUBECULARIA.—BILOCULINA.

			Diam.	Page	
Figures 1-4.—	<i>Nubecularia tibia</i> , Jones and Parker,	.	×	50	135
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	Fig. 20. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect,	.	×	45	

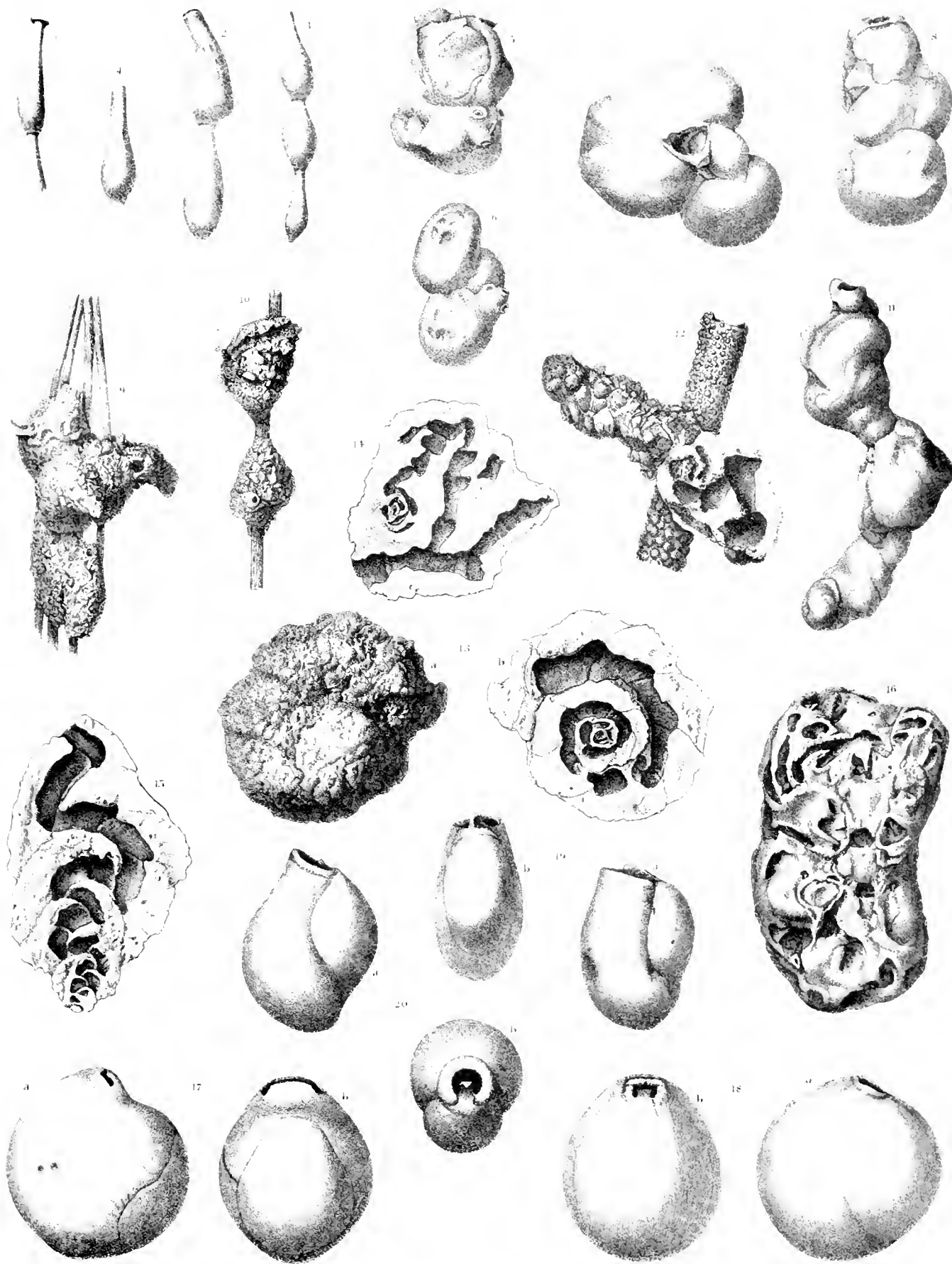


PLATE II.

PLATE II.

BILOCULINA.—PLANISPIRINA.

		Diam.	Page
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	<i>a</i> , Front aspect ; <i>b</i> , oral aspect.		
„	9.— <i>Biloculina elongata</i> , d'Orbigny,	× 45	144
	<i>a</i> , Front aspect ; <i>b</i> , oral aspect.		
„	10, 11.— <i>Biloculina depressa</i> , d'Orb., var. <i>murrhyna</i> , Schwager.	× 50	146
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	Fig. 12. < 30 diam.; fig. 15 . . 40 diam.; fig. 16,	× 35	
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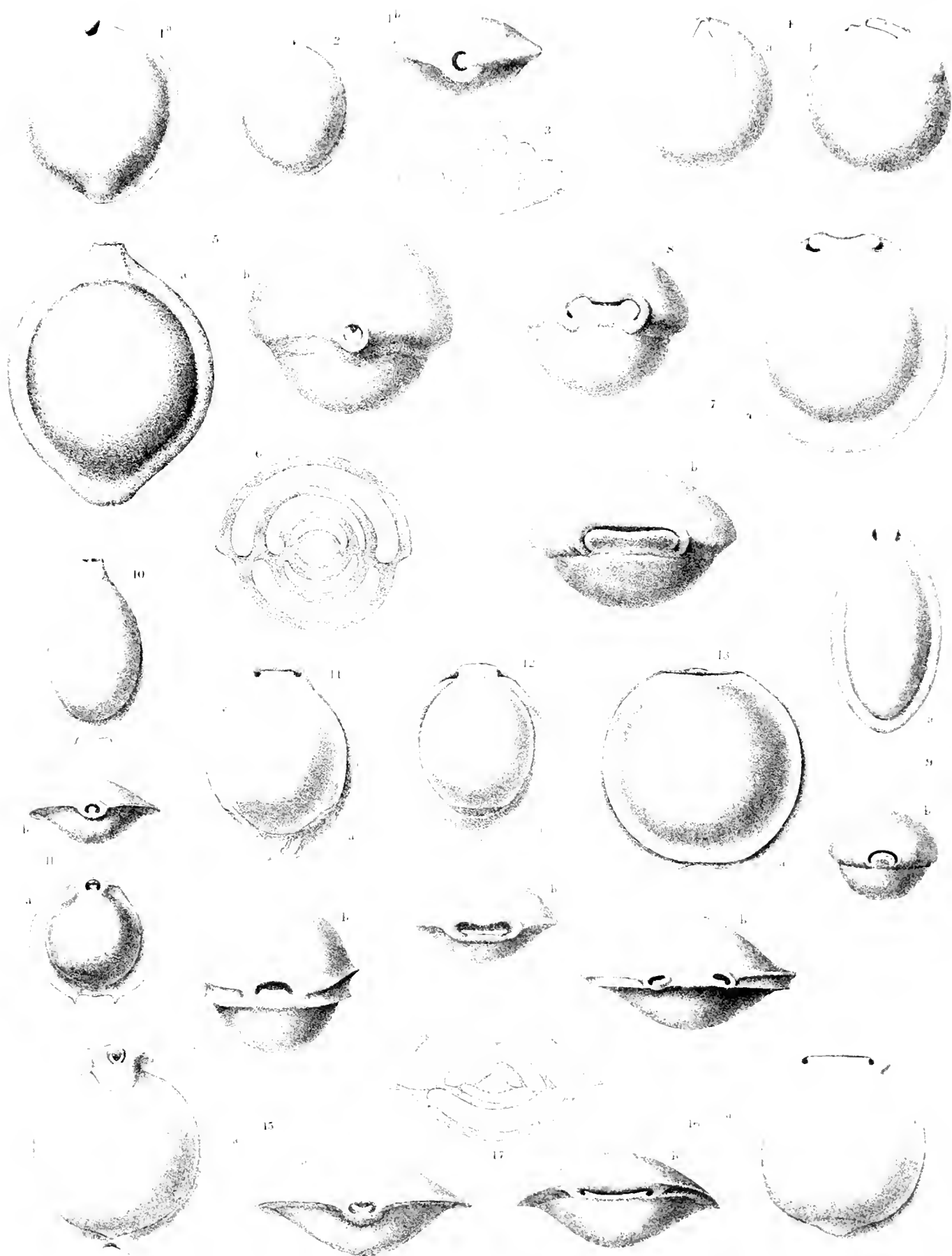


PLATE III.



PLATE III.

BILOCULINA.—MILIOLINA.

		Diam.	Page
Figures 1, 2.—	<i>Biloculina depressa</i> , d'Orbigny,	× 40	145
	Figs. 1, 2. <i>a</i> , Front aspect; <i>b</i> , oral aspect.		
„ 3.—	<i>Biloculina depressa</i> , d'Orb., var. <i>serrata</i> , nov.,	× 25	146
	<i>a</i> , Front aspect; <i>b</i> , opposite face; <i>c</i> , oral aspect.		
„ 4, 5.—	<i>Biloculina ringens</i> (Lam.), var. <i>denticulata</i> , nov.,	× 40	143
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„ 9.—	<i>Biloculina comata</i> , Brady,	× 40	144
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	<i>a</i> , Lateral aspect; <i>b</i> , oral aspect.		

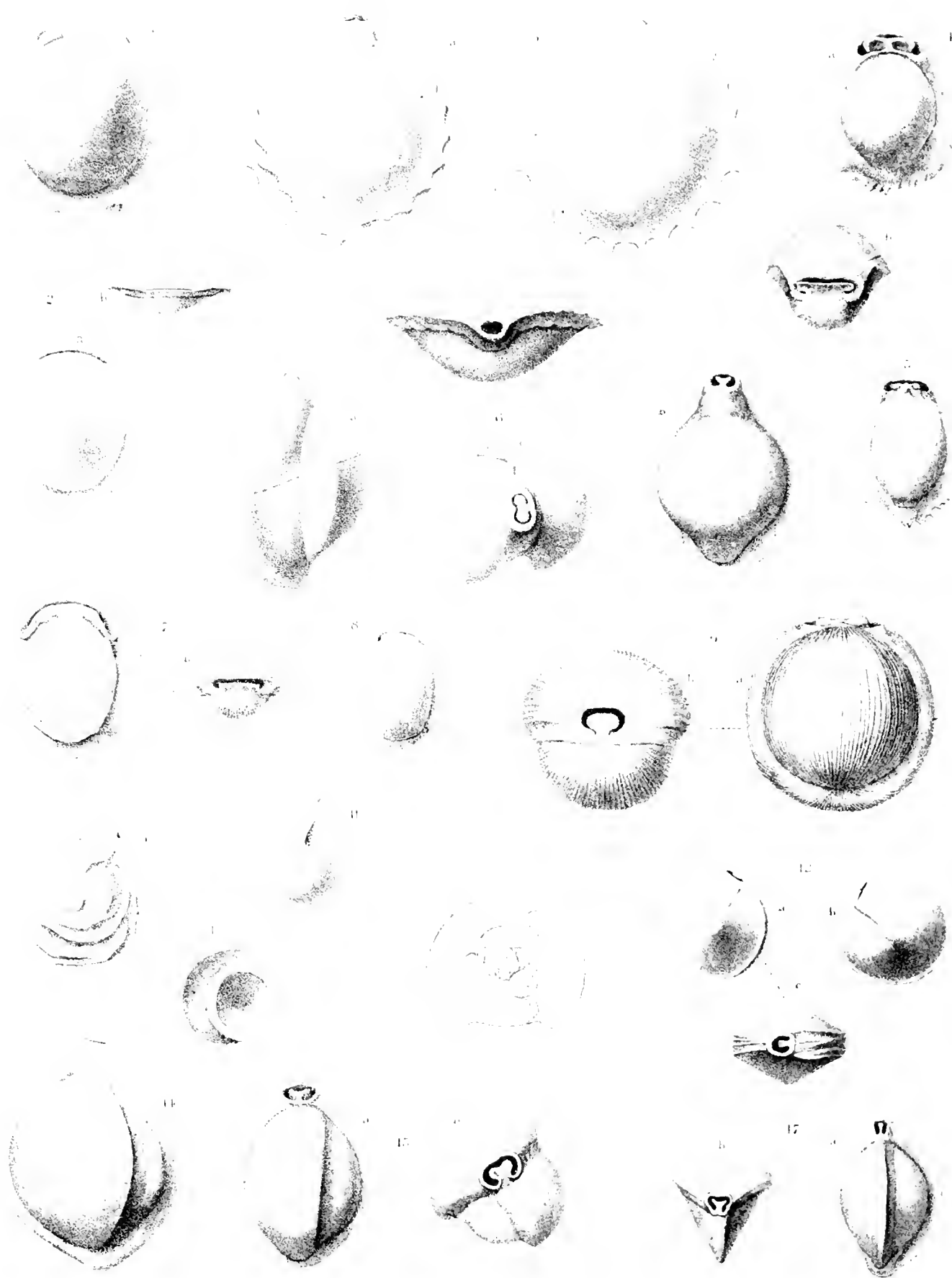


PLATE IV.

PLATE IV.

MILIOLINA.

			Diam.	Page
Figures 1, 2.—	<i>Miliolina bucculenta</i> , var. <i>placentiformis</i> , nov.,	.	× 20	171
	<i>a, b</i> , Lateral aspects ; <i>c</i> , oral aspect.			
„ 3.—	<i>Miliolina circularis</i> , Bornemann, sp.,	.	× 50	169
	<i>a, b</i> , Lateral aspects ; <i>c</i> , oral aspect.			
„ 4, 5.—	<i>Miliolina valvularis</i> , Reuss, sp.,	.	× 16	161
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	Fig. 5. Transverse section of the shell.			
„ 6.—	<i>Miliolina transversestriata</i> , Brady,	.	× 50	177
	<i>a, b</i> , Lateral aspects ; <i>c</i> , oral aspect.			
„ 7.—	<i>Miliolina circularis</i> (Born.), var. <i>sublineata</i> , nov.,	.	× 50	169
	<i>a, b</i> , Lateral aspects ; <i>c</i> , oral aspect.			
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	Fig. 8. <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect,	.	× 27	
	Fig. 10. <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect,	.	× 40	
„ 9.—	<i>Miliolina fichteliana</i> , d'Orbigny, sp.,	.	× 35	169
	<i>a, b</i> , Lateral aspects ; <i>c</i> , oral aspect.			

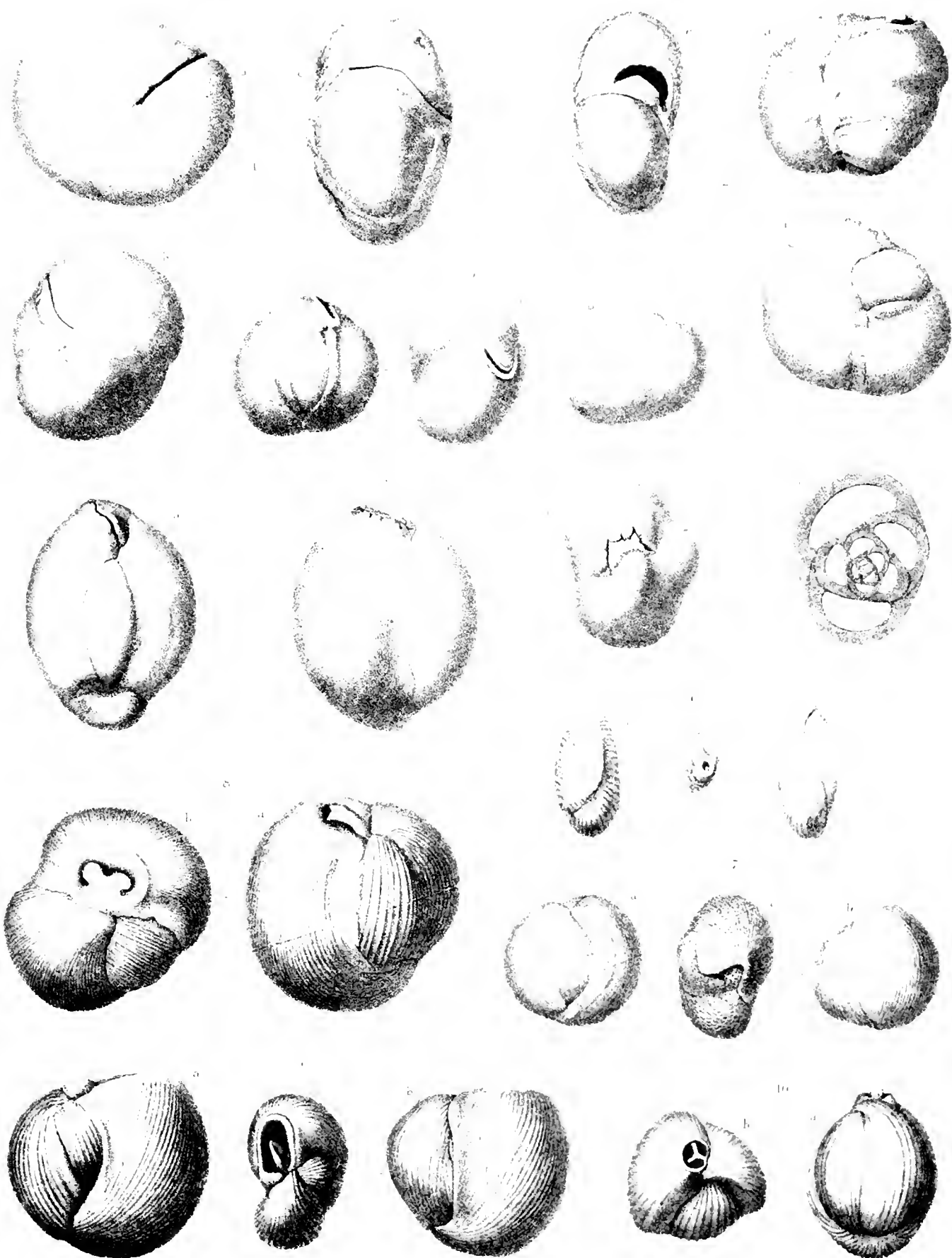


PLATE V.

PLATE V.

MILIOLINA.

			Diam.	Page
Figures 1, 2.—	<i>Miliolina cultrata</i> , Brady,	.	× 50	161
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„ 4.—	<i>Miliolina oblonga</i> , Montagu, sp.,	.	× 50	160
	<i>a</i> , Lateral aspect ; <i>b</i> , oral aspect.			
„ 5, 7.—	<i>Miliolina venusta</i> , Karrer, sp.,	.	× 50	162
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„ 6.—	<i>Miliolina seminulum</i> , Linné, sp.,	.	× 50	157
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„ 13, 14.—	<i>Miliolina circularis</i> , Bornemann, sp. (?),	.	× 50	169
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„ 15.—	<i>Miliolina</i> , sp. Large anomalous specimen with two apertures,	.	× 12	159

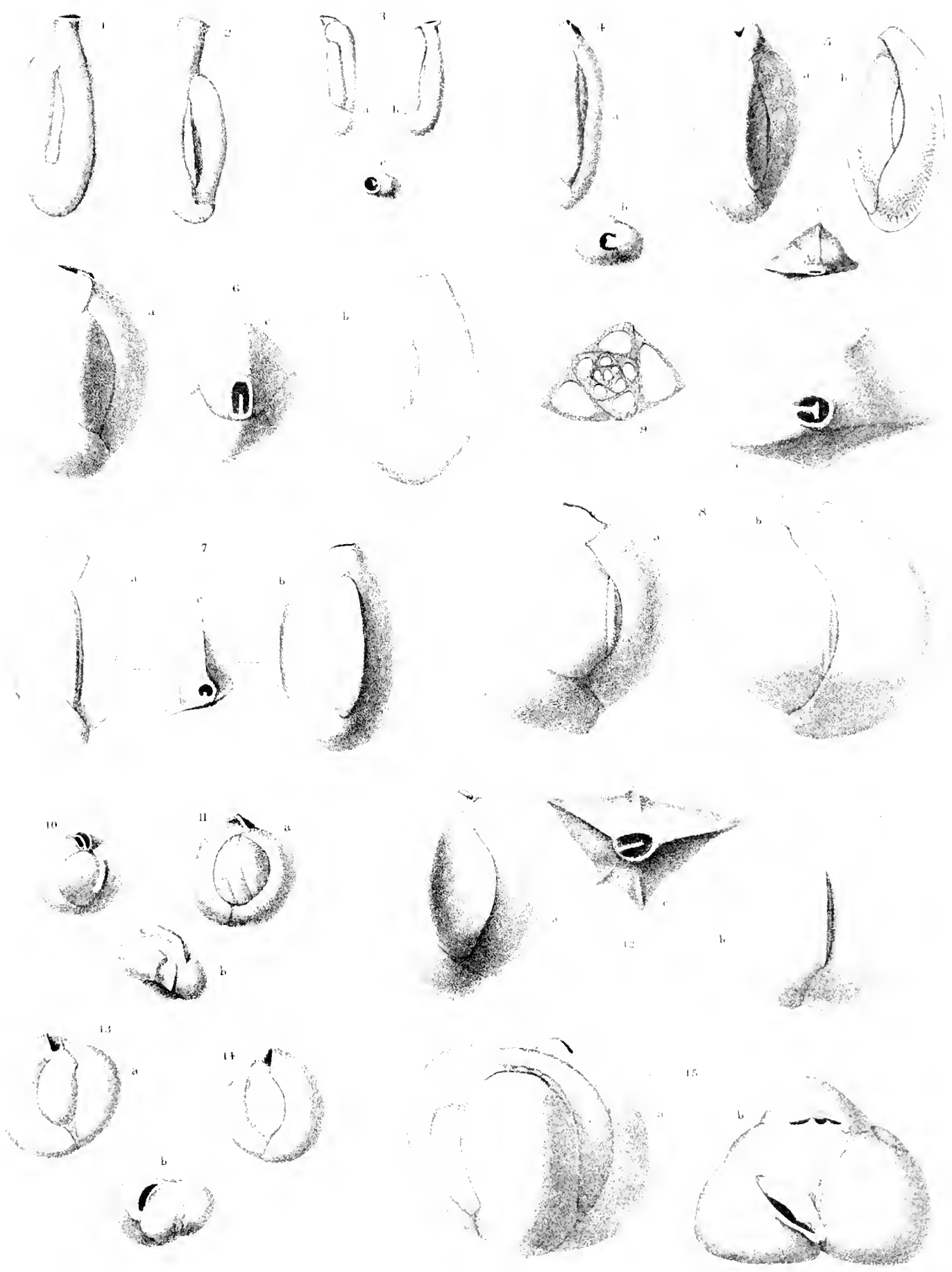


PLATE VI.

PLATE VI.

MILIOLINA.

		Diam.	Page
Figures 1, 2.—	<i>Miliolina secans</i> , d'Orbigny, sp.,	× 50	167
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	Figs. 11 <i>a</i> , 12. Lateral aspects ; 11 <i>b</i> , oral aspect.	× 35	
„ 10.—	<i>Miliolina amygdaloides</i> , n. sp.,	× 50	163
	<i>a</i> , Lateral aspect ; <i>b</i> , oral aspect.		
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	Figs. 18-19. Oral aspect.		
	Fig. 20. Transverse section, showing the arrangement of the chambers.		

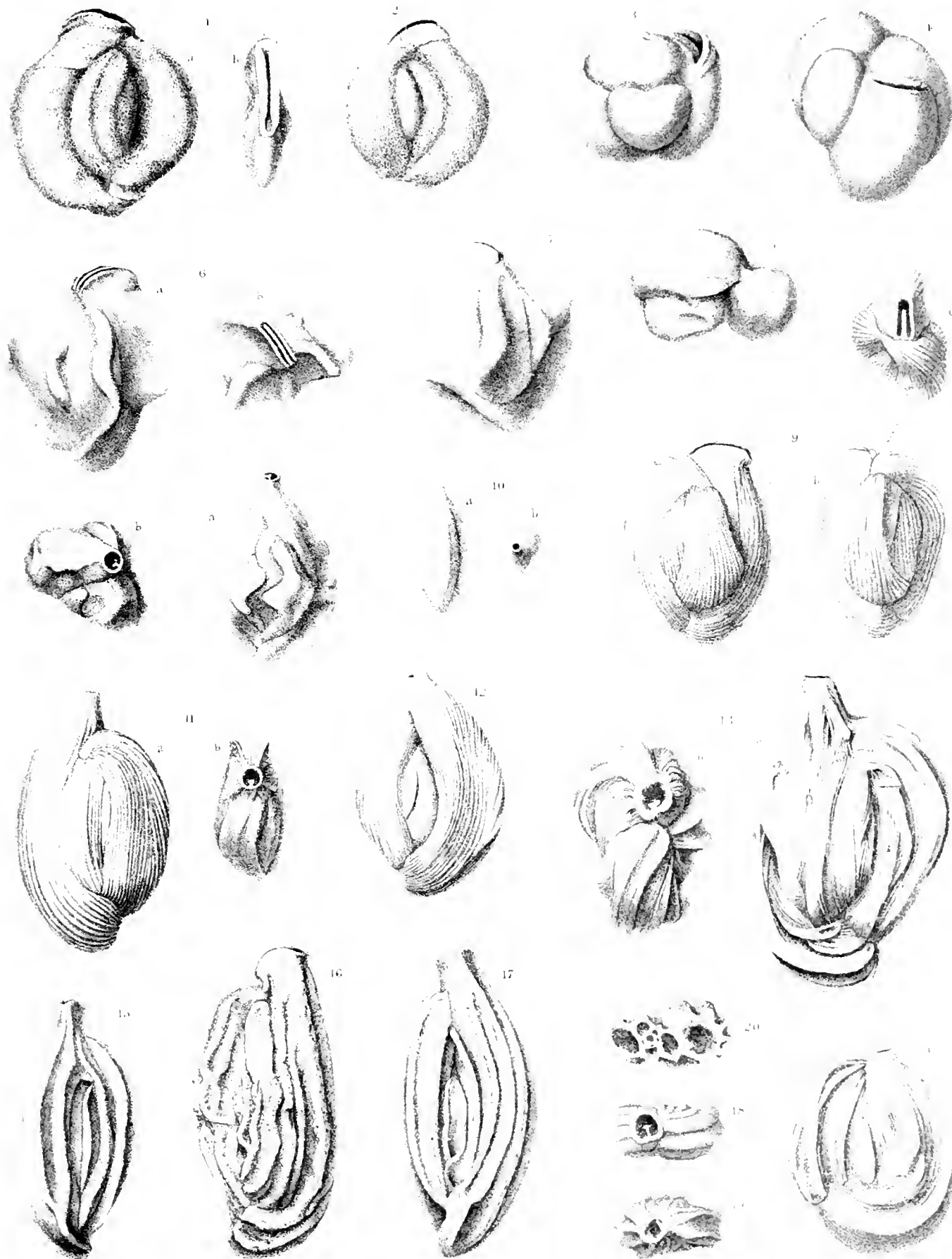


PLATE VII.

PLATE VII.

MILIOLINA.—HAUERINA.

			Diam.	Page
Figures 1-4.—	<i>Miliolina separans</i> , Brady,	.	×	20
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	Fig. 11. Portion of a young shell viewed by transmitted light,	.	×	100
	Fig. 12. Surface of the shell,	.	×	100
„ 13.—	<i>Miliolina boueana</i> , d'Orbigny, sp.,	.	×	50
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„ 14.—	<i>Miliolina parkeri</i> , Brady, .	.	×	40
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„ 15-22.—	<i>Hauerina ornatissima</i> , Karrer, sp.,	.	×	50
	Specimens of various forms and in different stages of growth.			
	15 <i>b</i> , Oral aspect of adult specimen.			

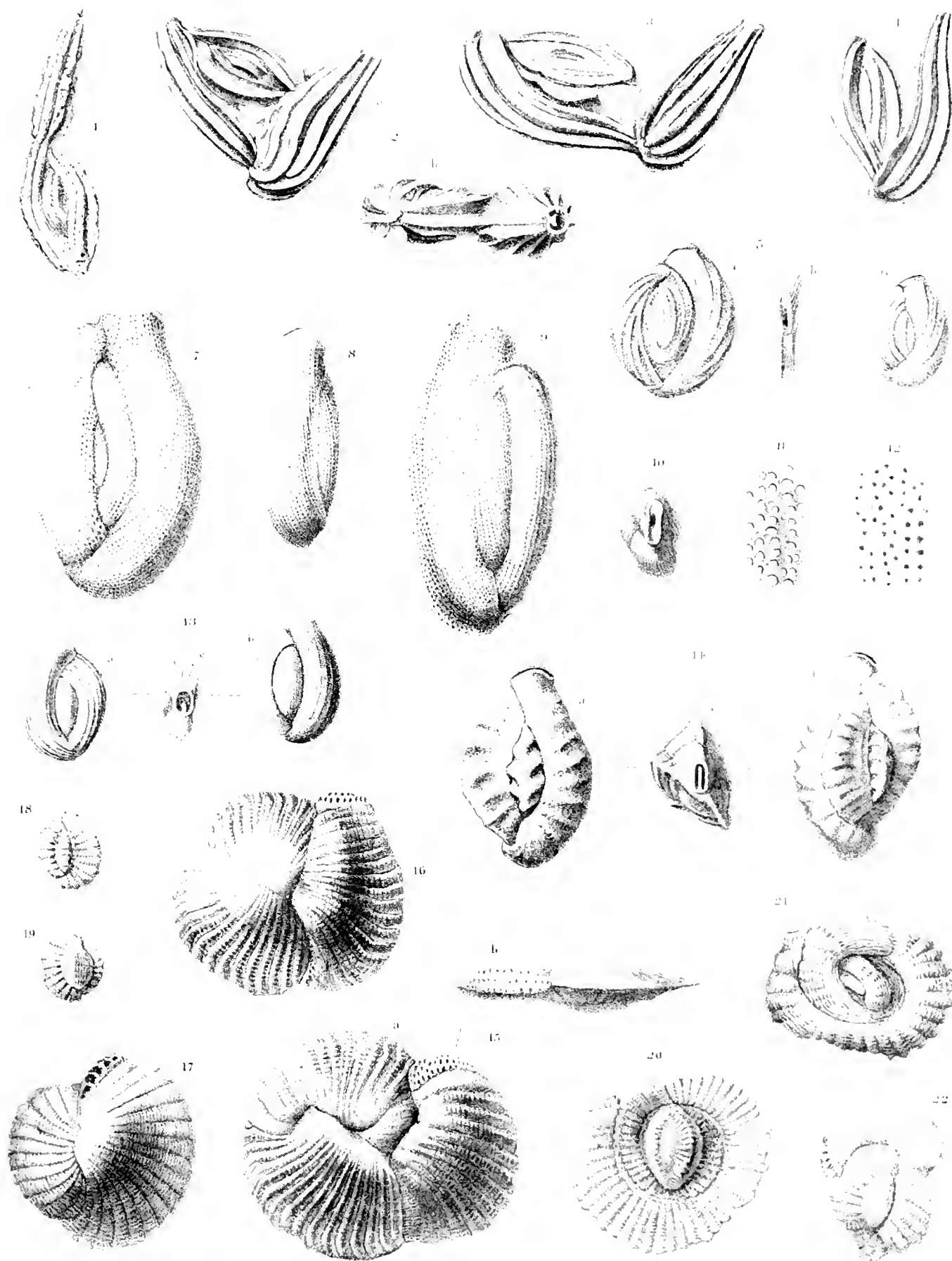


PLATE VIII.



PLATE VIII.

PLANISPIRINA. — MILIOLINA. — SPIROLOCULINA.

			Diam.	Page
Figures 1-4.	— <i>Planispirina celata</i> , Costa, sp.,	×	50	197
	Figs. 1, 2. <i>a, a</i> , Lateral aspect ; <i>b, b</i> , oral aspect.			
	Fig. 3. Longitudinal section of the test.			
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„ 5.	— <i>Miliolina crassatina</i> , Brady,	×	50	180
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„ 6, 7.	— <i>Miliolina agglutinans</i> , d'Orbigny, sp.,	×	50	180
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	Fig. 17. Young specimen,	×	25	
	Fig. 18. Longitudinal section of the test,	×	40	
	Figs. 19, 20. Transverse sections,	×	25	

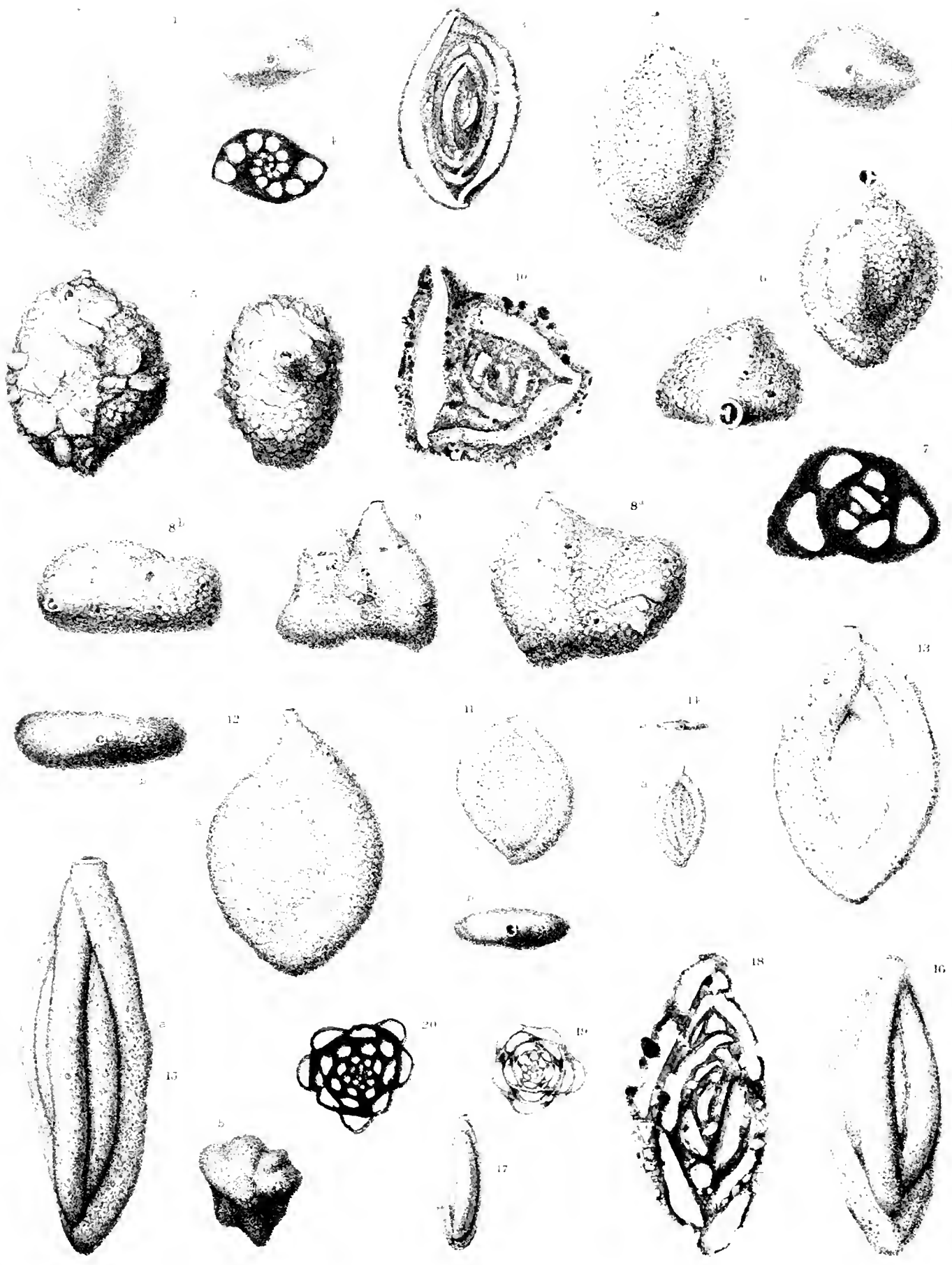


PLATE IX.

PLATE IX.

MILIOLINA.—SPIROLOCULINA.

			Diam.	Page
Figure 1.—	<i>Miliolina</i> , sp. ?—or possibly an early stage of <i>Articulina</i> ,	×	50	183
„ 2-4.—	<i>Miliolina reticulata</i> , d'Orbigny, sp., Figs. 2 <i>a</i> , 3, 4. Lateral aspect ; 2 <i>b</i> , oral aspect.	×	25	177
„ 5, 6.—	<i>Spiroloculina excavata</i> , d'Orbigny, Figs. 5 <i>a</i> , 6. Lateral aspect ; 5 <i>b</i> , oral aspect.	×	30	151
„ 7, 8.—	<i>Spiroloculina robusta</i> , n. sp., Figs. 7 <i>a</i> , 8. Lateral aspect ; 7 <i>b</i> , oral aspect.	×	20	150
„ 9, 10.—	<i>Spiroloculina nitida</i> , d'Orbigny, Fig. 9. <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect, Fig. 10. Lateral aspect,	×	50 40	149
„ 11.—	<i>Spiroloculina planulata</i> , Lamarck, sp., <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect.	×	35	148
„ 12-14.—	<i>Spiroloculina fragilissima</i> , n. sp., Figs. 12 <i>a</i> , 13, 14. Lateral aspect ; 12 <i>b</i> , oral aspect.	×	50	149
„ 15-17.—	<i>Spiroloculina limbata</i> , d'Orbigny, Fig. 15. <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect. Fig. 17. <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect, Fig. 16. Transverse section of the shell,	×	50 30 30	150

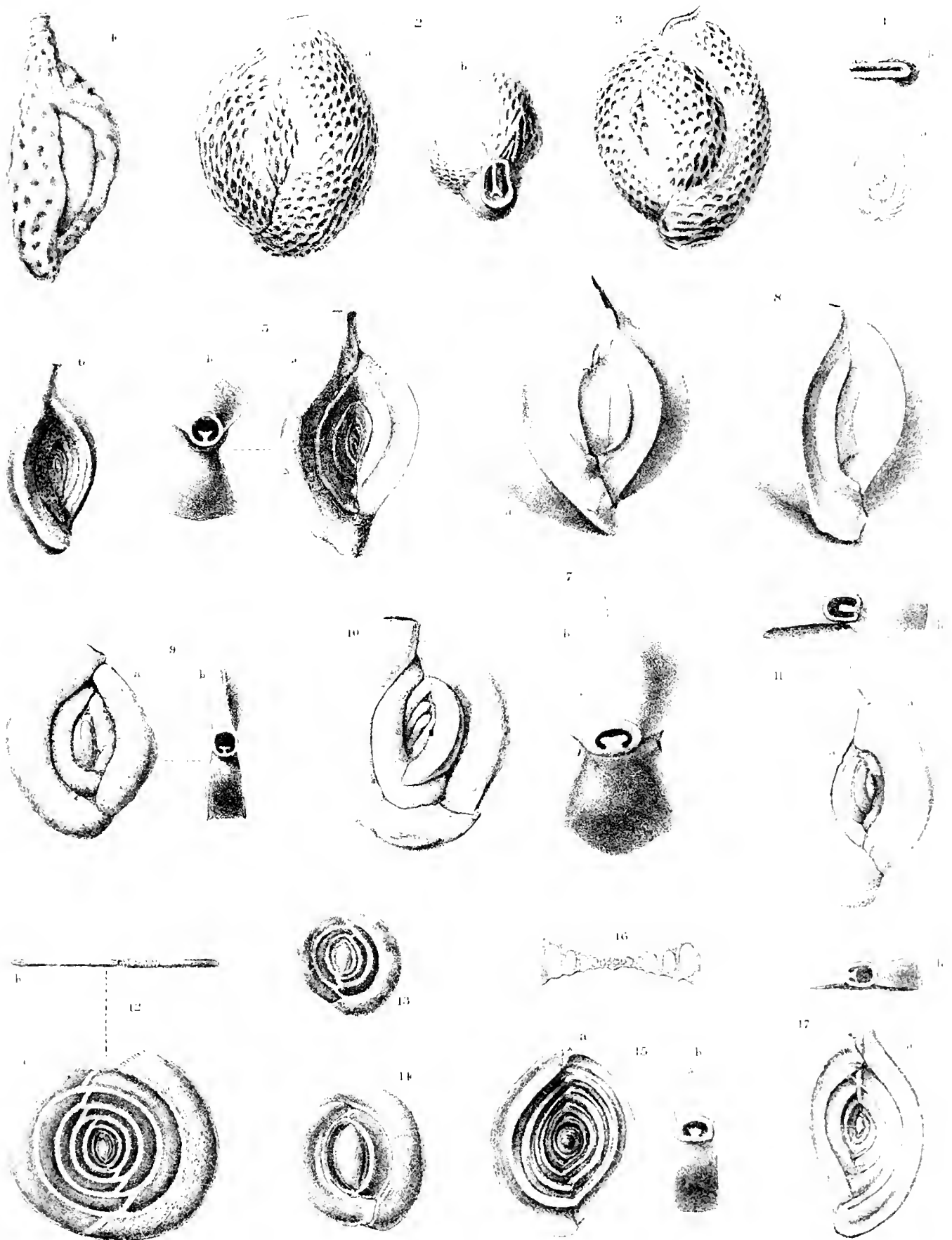


PLATE X.

PLATE X.

PIROLOCULINA.

		Diam.	Page
Figures 1, 2.— <i>Spiroloculina limbata</i> , d'Orbigny, (var.)	×	30	150
Figs. 1 <i>a</i> , 2. Lateral aspect ; 1 <i>b</i> , oral aspect.			
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„ 12–15.— <i>Spiroloculina acutimargo</i> , n. sp.,	×	50	154
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„ 16, 17.— <i>Spiroloculina grata</i> , Terquem,	×	50	155
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„ 21.— <i>Spiroloculina antillarum</i> , d'Orbigny,	×	30	155
<i>a</i> , Lateral aspect ; <i>b</i> , oral aspect.			
„ 22, 23.— <i>Spiroloculina grata</i> , Terquem,	×	30	155
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„ 24–26.— <i>Spiroloculina crenata</i> , Karrer,	×	75	156
Figs. 24 <i>a</i> –26. Lateral aspect ; 24 <i>b</i> , oral aspect.			

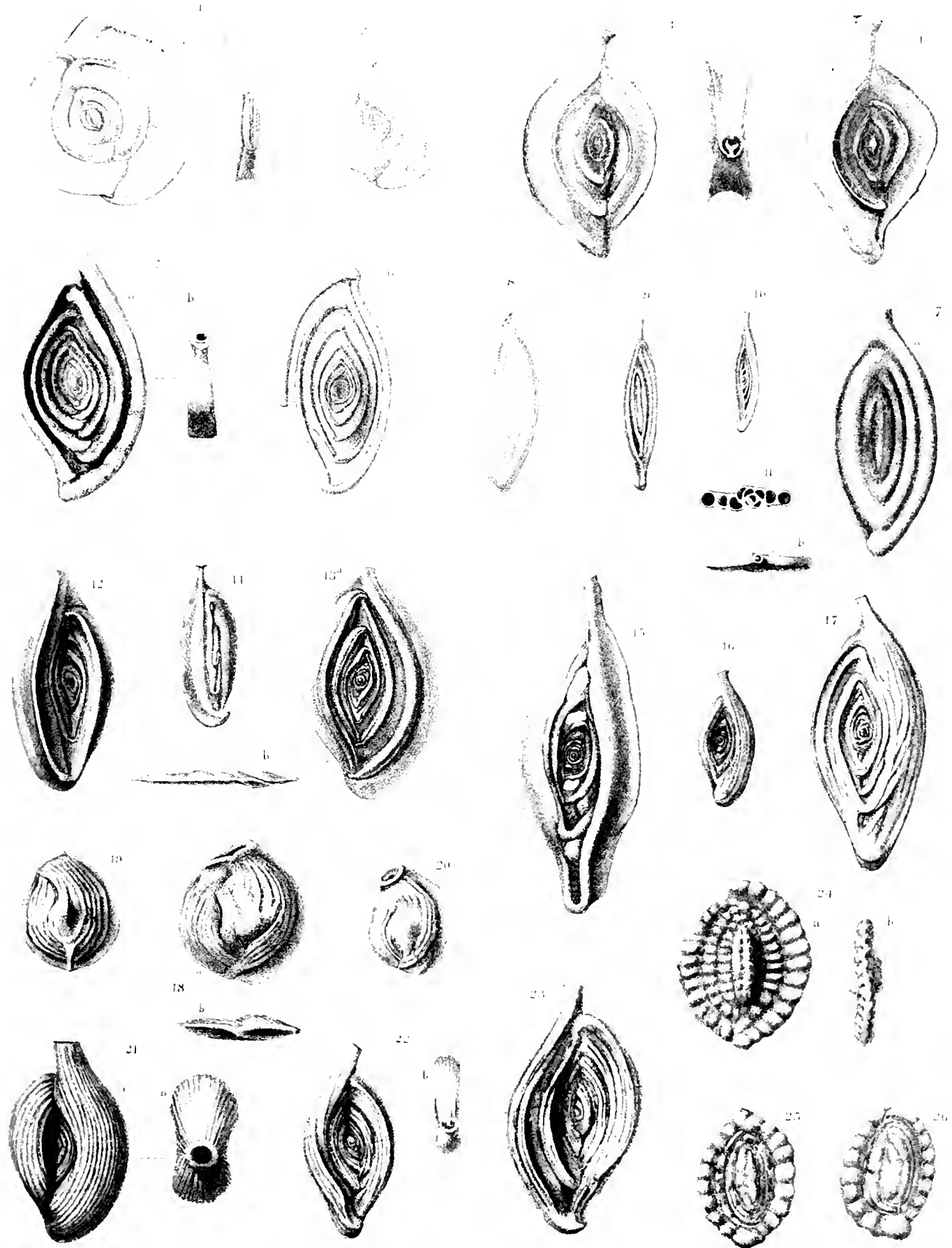
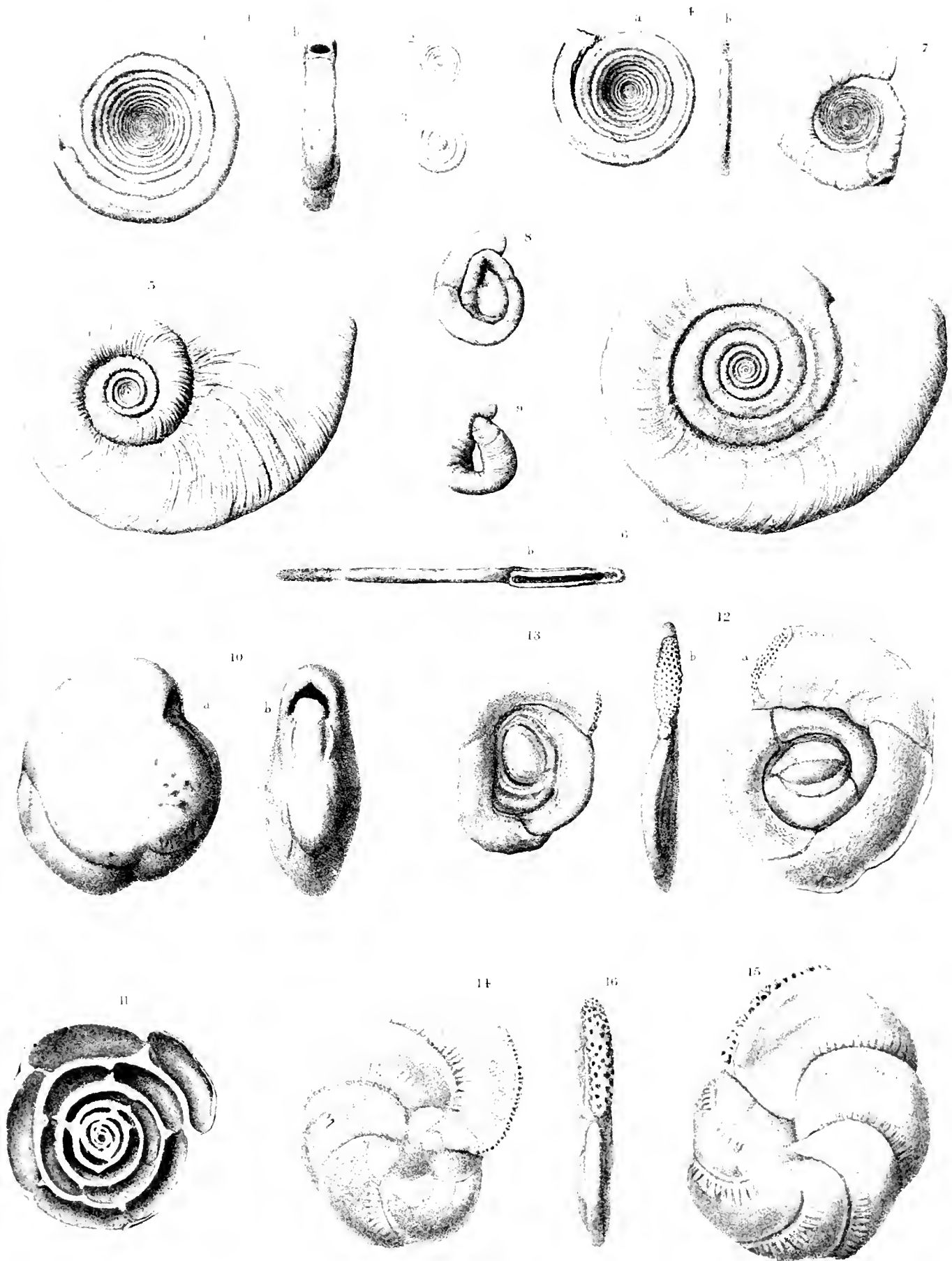


PLATE XI.

PLATE XI.

CORNUSPIRA.—PLANISPIRINA.—HAUERINA.

			Diam.	Page
Figures 1-3.—	<i>Cornuspira involvens</i> , Reuss,	×	30	200
	Figs. 1 <i>a</i> , 2, 3. Lateral aspect ; 1 <i>b</i> , peripheral aspect.			
„ 4.—	<i>Cornuspira carinata</i> , Costa, sp.,	×	30	201
	<i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect.			
„ 5-9.—	<i>Cornuspira foliacea</i> , Philippi, sp.,			199
	Figs. 5, 6 <i>a</i> , Lateral aspect ; 6 <i>b</i> , peripheral aspect,	×	15	
	Figs. 7-9. Monstrous specimens,	×	16	
„ 10, 11.—	<i>Planispirina contraria</i> , d'Orbigny, sp.,	×	20	195
	Fig. 10. <i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect.			
	Fig. 11. Horizontal section of the test.			
„ 12, 13.—	<i>Hauerina compressa</i> , d'Orbigny,	×	50	190
	Figs. 12 <i>a</i> , 13. Lateral aspect ; 12 <i>b</i> , peripheral aspect.			
„ 14-16.—	<i>Hauerina circinata</i> , Brady,	×	50	191
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CORNUSPIRA HAUERINA

PLATE XII.

PLATE XII.

PLANISPIRINA.—OPHTHALMIDIUM.—VERTEBRALINA.—ARTICULINA.

			Diam.	Page
Figures 1-4.—	<i>Planispirina exigua</i> , Brady,	.	× 50	196
	Figs. 1 <i>a</i> , 2. Lateral aspect ; 1 <i>b</i> , peripheral aspect.			
	Figs. 3, 4. Horizontal sections of the shell.			
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	Fig. 5. Lateral aspect.	.	× 30	
	Figs. 7, 8. Lateral aspect,	.	× 50	
„ 6.—	<i>Ophthalmidium tumidulum</i> , n. sp.,	.	× 50	189
„ 9-11.—	<i>Vertebralina insignis</i> , n. sp.,	.	× 50	187
	Figs. 9 <i>a</i> , 10, 11. Lateral aspects ; 9 <i>b</i> , oral aspect.			
„ 12, 13.—	<i>Articulina sulcata</i> , Reuss,	.	× 50	183
	Figs. 12 <i>a</i> , 13. Lateral aspects ; 12 <i>b</i> , oral aspect.			
„ 14-16.—	<i>Vertebralina striata</i> , d'Orbigny,	.	× 50	187
	Figs. 14, 15 <i>a</i> , 16. Lateral aspect ; 15 <i>b</i> , oral aspect.			
„ 17, 18.—	<i>Articulina conico-articulata</i> , Batsch, sp.,	.	× 50	185
	Figs. 17, 18 <i>a</i> , Lateral aspect ; 18 <i>b</i> , oral aspect.			
„ 19-21.—	<i>Articulina lineata</i> , n. sp.,	.	× 50	183
	Figs. 19-21. Lateral aspect ; <i>b</i> , oral aspect.			
„ 22-24.—	<i>Articulina sagra</i> , d'Orbigny.	.	× 50	184
	Figs. 22-24. Lateral aspect ; <i>b</i> , oral aspect.			

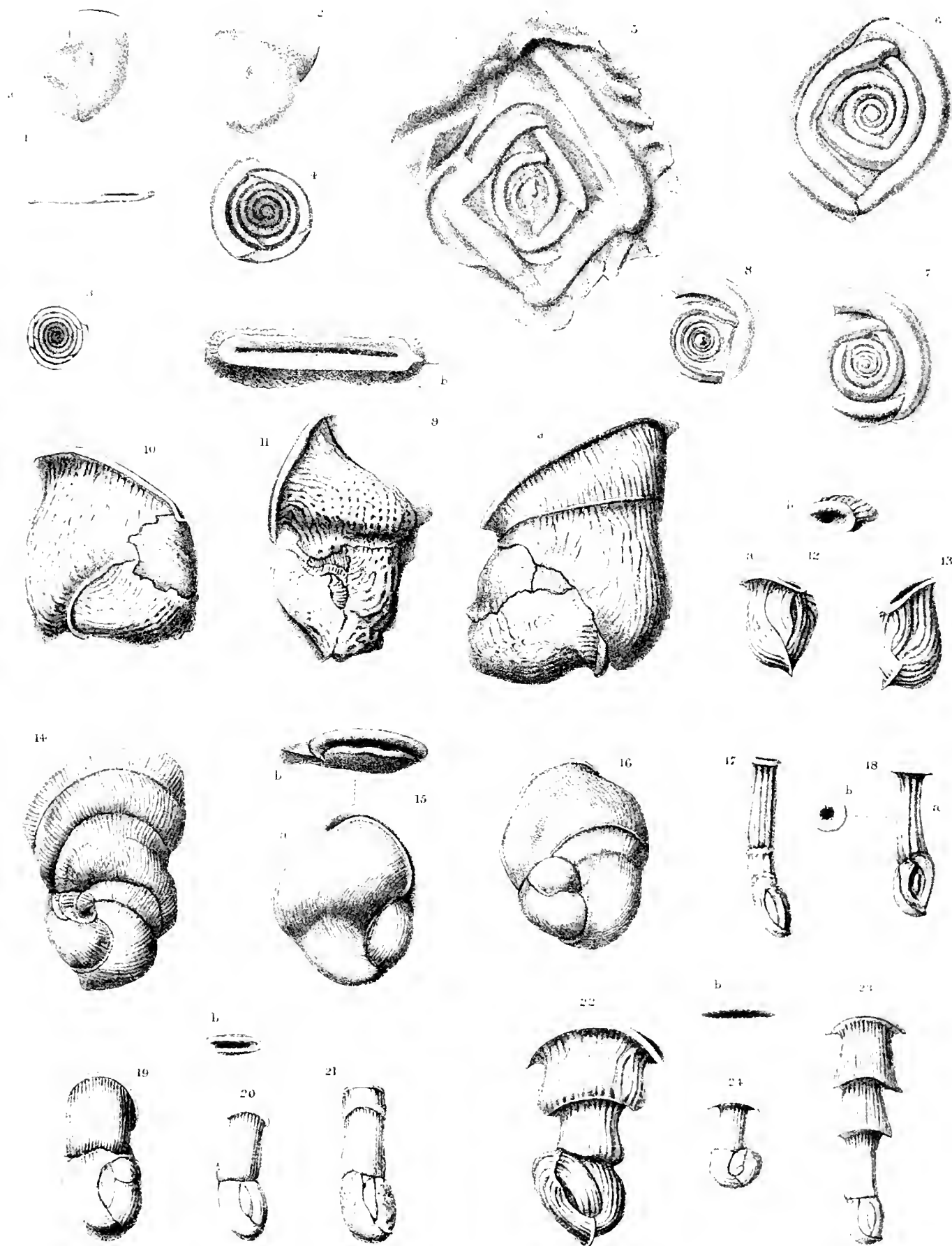
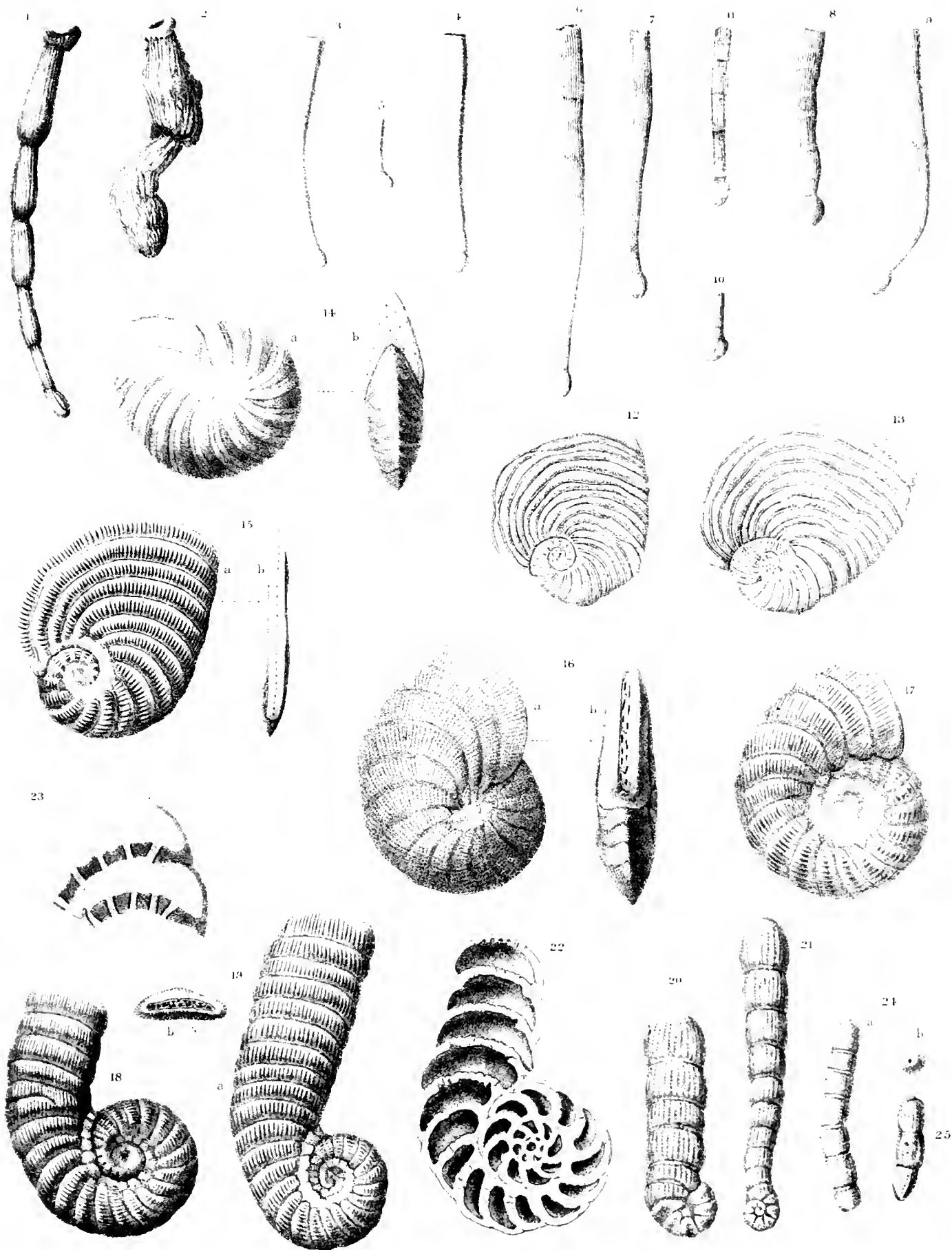


PLATE XIII.

PLATE XIII.

ARTICULINA.—PENEROPLIS.

		Diam.	Page
Figure	1.— <i>Articulina conico-articulata</i> , Batsch, sp.,	× 50	185
„	2.—Misshapen specimen, probably of the same species,	× 50	
„	3-5.— <i>Articulina funalis</i> , var. <i>inornata</i> , nov.,	× 30	186
„	6-11.— <i>Articulina funalis</i> , n. sp.,	× 30	185
	Fig. 11. Specimen viewed by transmitted light, showing the septation.		
„	12-25.— <i>Peneroplis pertusus</i> , Forskål, sp.,		204
	Fig. 15. Var. <i>a</i> ,— <i>Peneroplis planatus</i> , Fichtel and Moll, sp.,	× 50	
	<i>a</i> , Lateral aspect ; <i>b</i> , front peripheral aspect.		
	Figs. 16, 17, 23. Var. <i>b</i> ,— <i>Peneroplis pertusus</i> , Forskål, sp.		
	Figs. 16 <i>a</i> , 17. Lateral aspect ; 16 <i>b</i> , front peripheral aspect,	× 40	
	Fig. 23. Section of a portion of the shell, by transmitted light, showing the punctation of the wall, and the stoloniferous passages,	× 200	
	Figs. 18, 19, 22. Var. <i>c</i> ,— <i>Peneroplis arietinus</i> , Batsch, sp.,	× 40	
	Figs. 18, 19 <i>a</i> , Lateral aspect ; 19 <i>b</i> , oral end.		
	Fig. 22. Longitudinal section of the shell.		
	Figs. 20, 21. Var. <i>d</i> ,— <i>Peneroplis cylindraceus</i> , Lamack, sp.,	× 60	
	Lateral aspect.		
	Figs. 24, 25. Var. <i>e</i> ,— <i>Peneroplis lituus</i> , Gmelin, sp. (?)	× 75	
	Incomplete specimens.		
	Fig. 14. Var. <i>f</i> ,— <i>Peneroplis carinatus</i> , d'Orbigny,	× 50	
	<i>a</i> , Lateral aspect ; <i>b</i> , front peripheral aspect.		
	Figs. 12, 13. Var. <i>g</i> ,— <i>Peneroplis loricatus</i> , Karer,	× 50	
	Lateral aspect.		



ARTICULINA - PENEROPLIS.

PLATE XIV.

PLATE XIV

ORBICULINA.

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Figs. 1, 2. Very young or nautiloid condition :— <i>Nautilus angulatus</i> , Fichtel and Moll, .	×	30
Figs. 3, 4. Varieties analogous to the "Spiroline" modifications of <i>Pencroplis</i> , .	×	30
Figs. 5, 6. Specimens in the young or intermediate stage ;— <i>Nautilus orbiculus</i> , Fichtel and Moll, .	×	30
Figs. 7, 8. Flabelliform adult shells ;— <i>Nautilus aduncus</i> , Fichtel and Moll, .	×	20
Fig. 9. Adult specimens, discoidal form ;— <i>Orbiculina compressa</i> , d'Orbigny, .	×	20
(h, h, h, peripheral aspect of the various forms.)		
Figs. 10, 11, 12. Transverse sections of shells in different stages of growth, showing the embrac- ing character of the earlier chambers, .	×	20-30
Fig. 13. Section of the shell more highly magnified, showing the superficial punctation, .	×	100

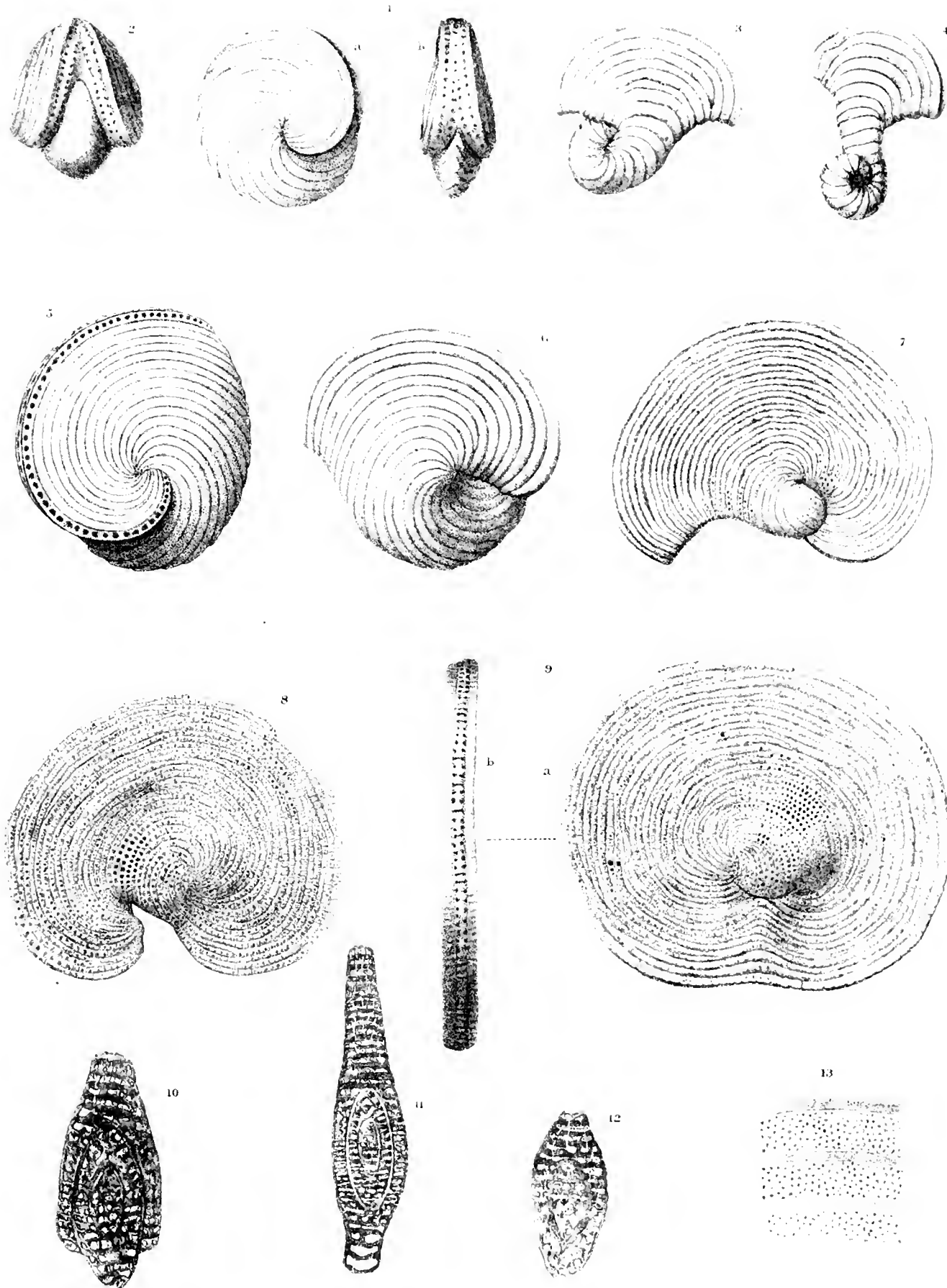


PLATE XV.

PLATE XV.

ORBITOLITES.

			Diam.	Page
Figures 1-5.—	<i>Orbitolites marginalis</i> , Lamarek, sp.	.	× 30	214
	Illustrating the various stages of growth.			
	Figs. 1-4. Young specimens ; fig. 4, viewed by transmitted light.			
	Fig. 5. Adult shell ; <i>a</i> , lateral aspect ; <i>b</i> , peripheral aspect.			
Figures 6, 7.—	<i>Orbitolites tenuissima</i> , Carpenter, .	.	× 20	212
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	Fig. 7. Central portion of another specimen, viewed by transmitted light.			

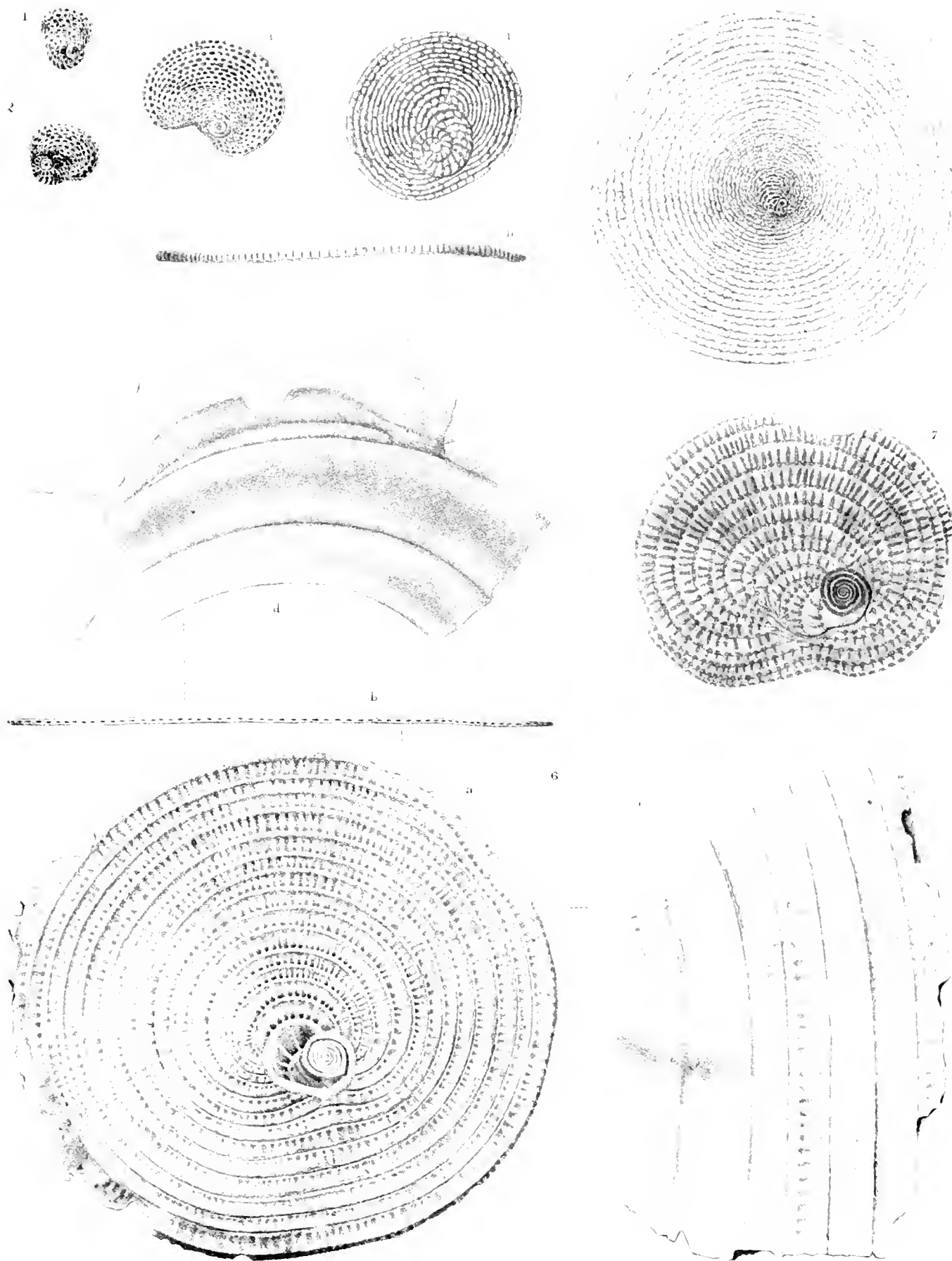
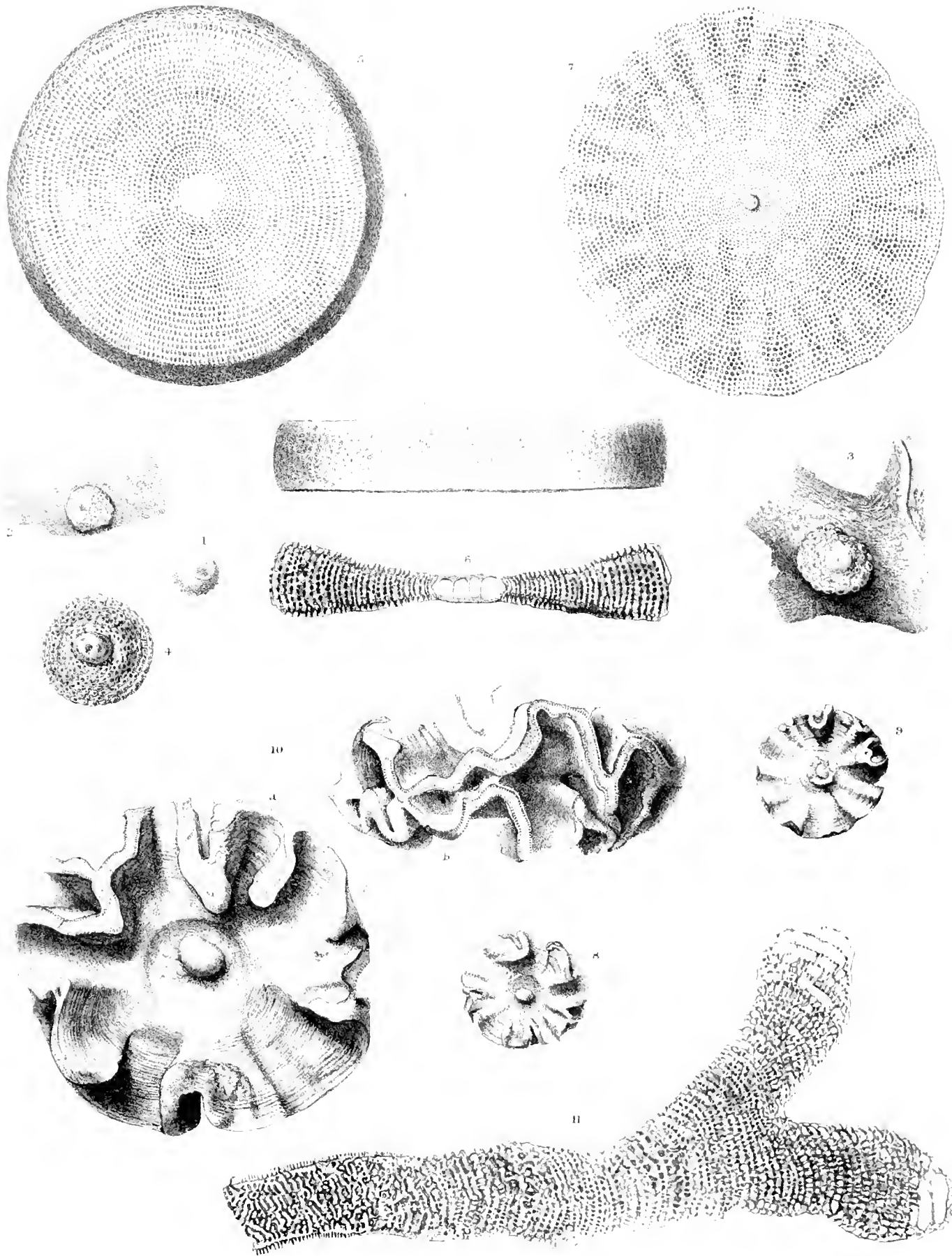


PLATE XVI.

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ORBITOLITES.

		Diam.	Page
Figures 1-6.	<i>Orbitolites complanata</i> , Lamarek, sp.,	218
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ORBITOLITES

PLATE XVII.

PLATE XVII.

ORBITOLITES. — ALVEOLINA.

		Diam.	Page
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	Fig. 14. Longitudinal section of the shell.		
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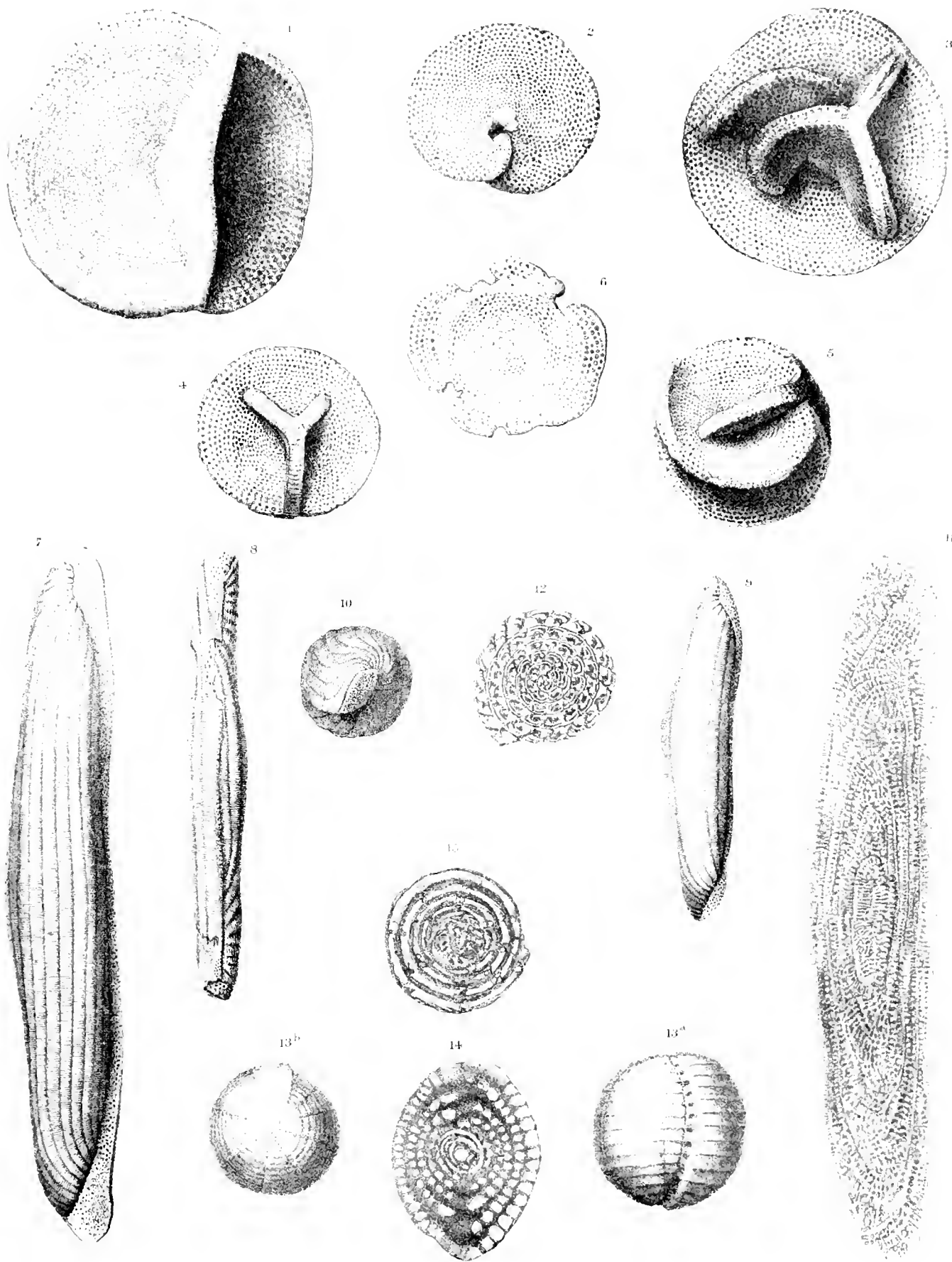


PLATE XVIII

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PSAMMOSPILERA.—SOROSPILÆRA.—SACCAMMINA.

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.. 9, 10.—	<i>Sorosphæra confusa</i> , Brady.	×	15	251
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	Fig. 17. Fusiform specimen with two apertures, re- sembling a segment of the Carboniferous <i>Saccammina carteri</i> .			
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ASTRORHIZA.

		Diam.	Page
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	Figs. 8, 9. Specimens laid open to show the interior,	× 8	
	Fig. 10. Portion of the surface more highly magnified, to show the constituent sand-grains,	× 100	

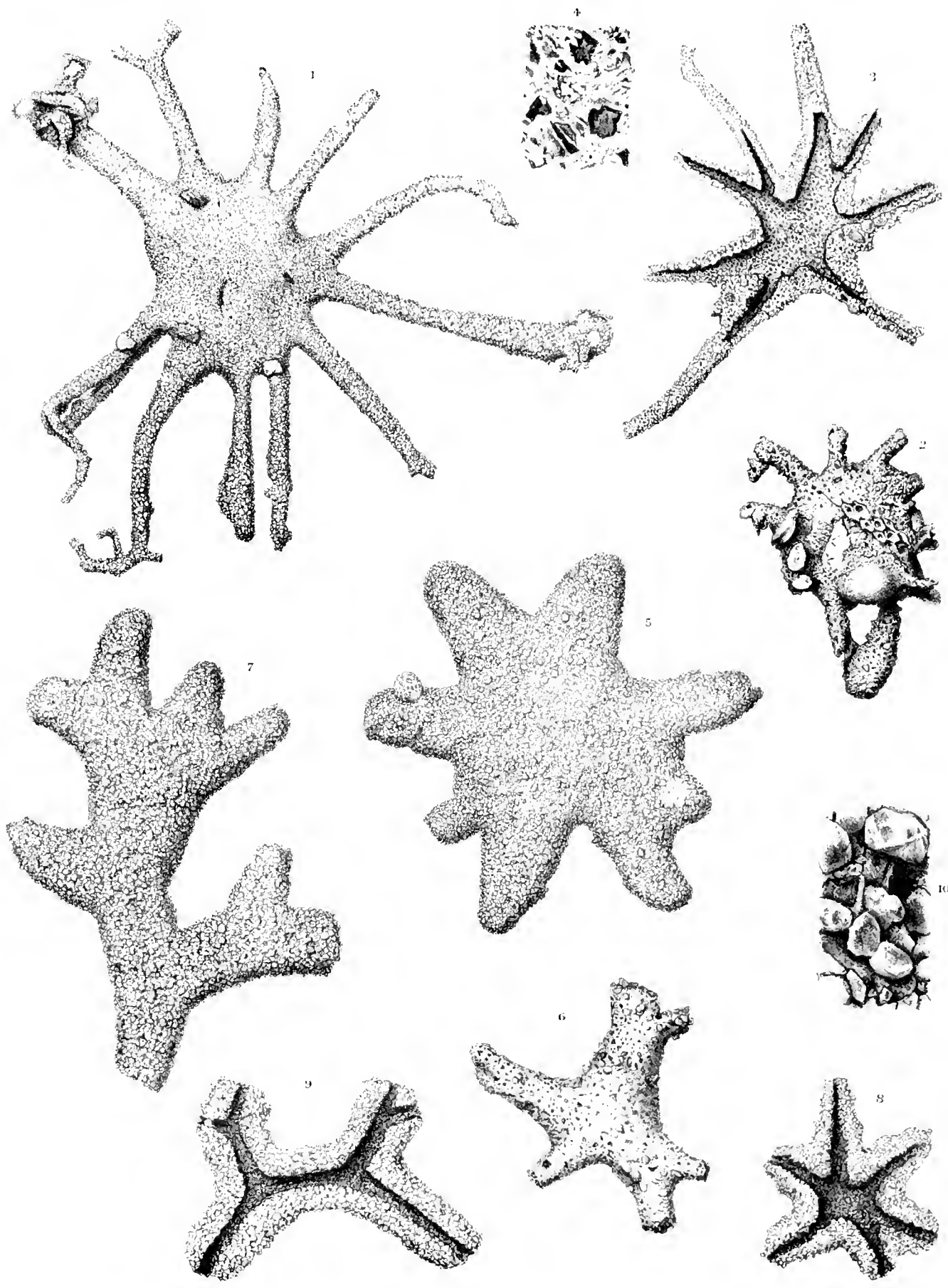
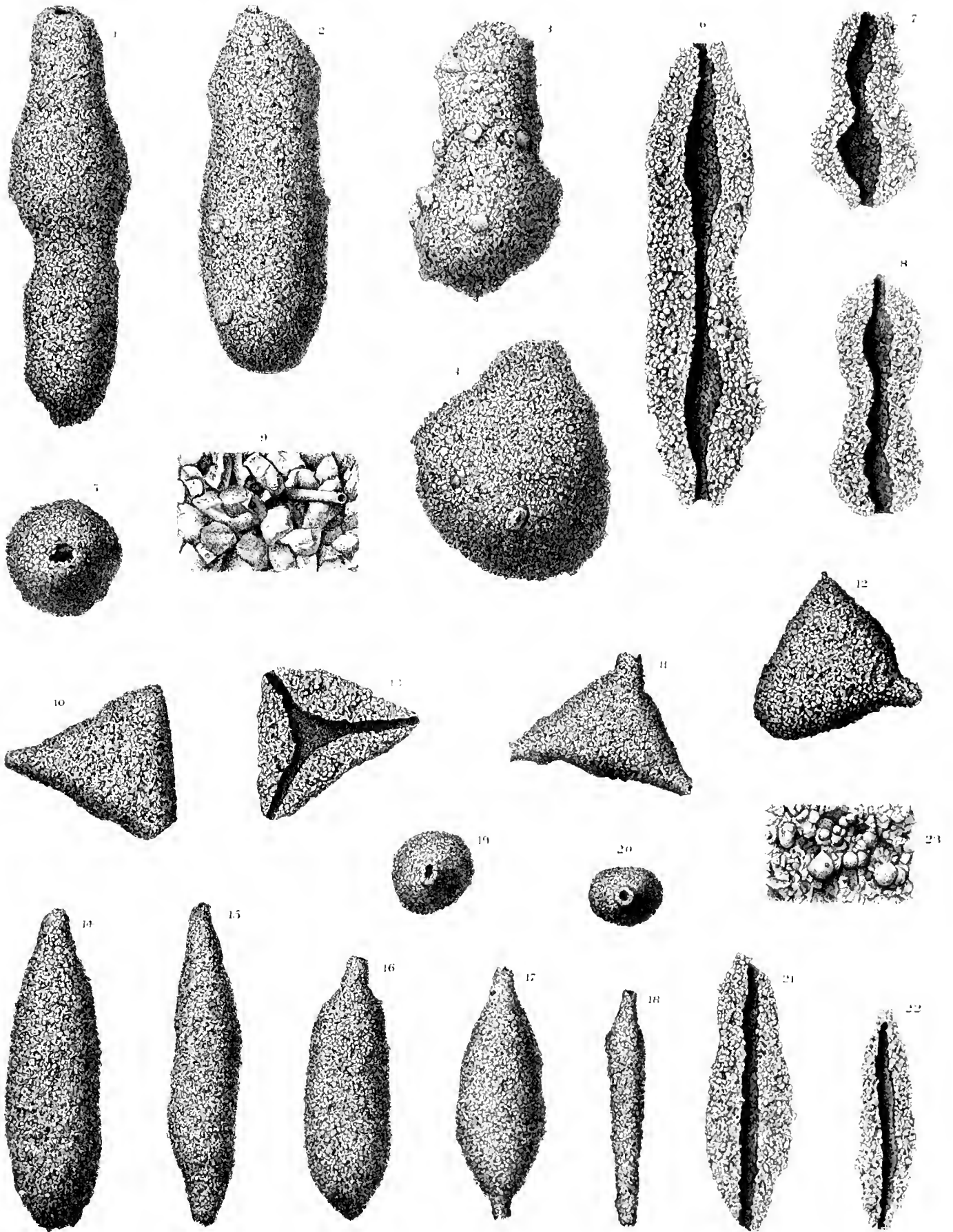


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ASTRORHIZA.

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A. H. Hollick ad nat. del. et lith.

ASTORRHIZA.

Hannhart imp.

PLATE XXI.

PLATE XXI.

RHABDAMMINA.

		Diam.	Page
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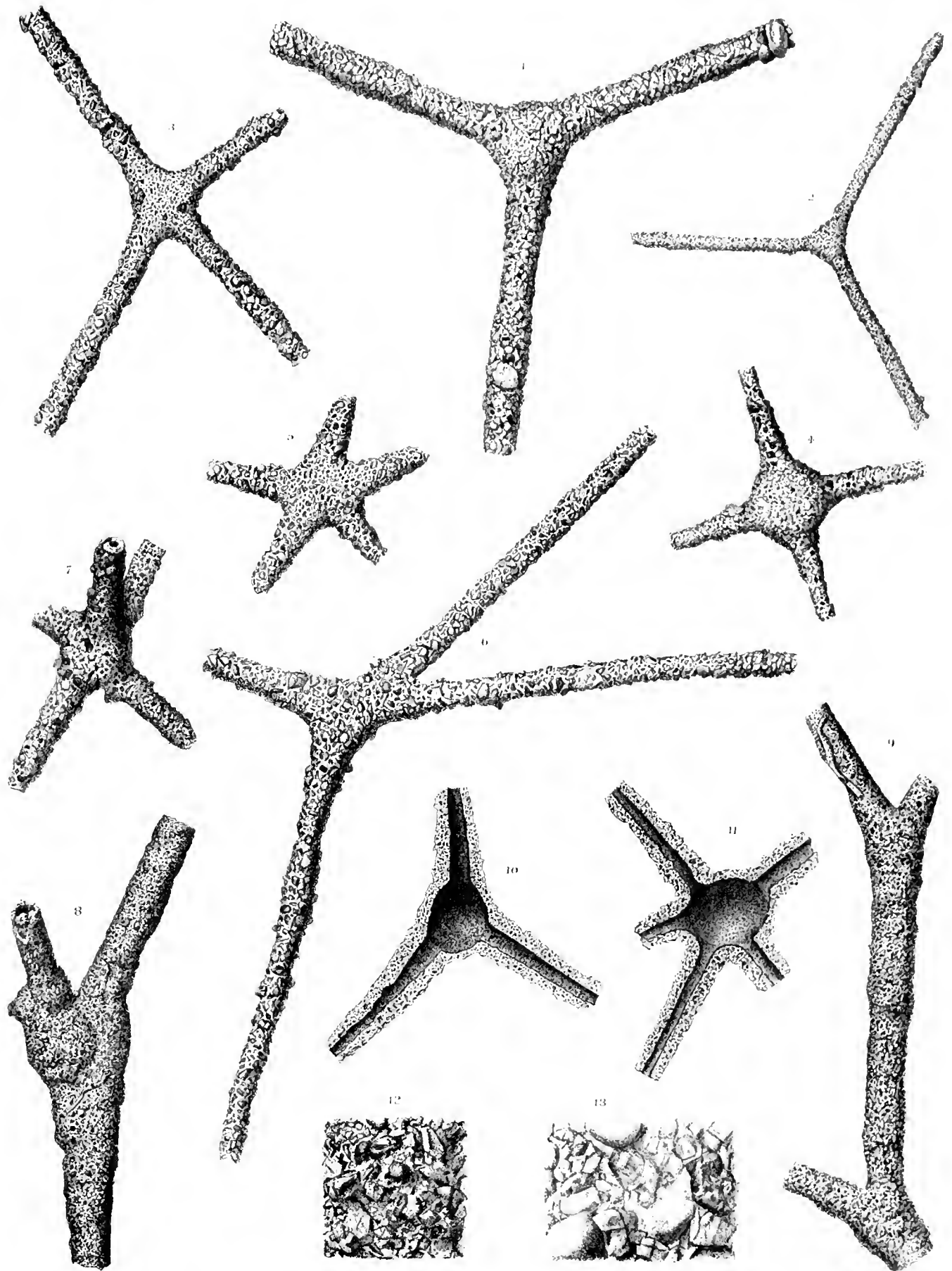


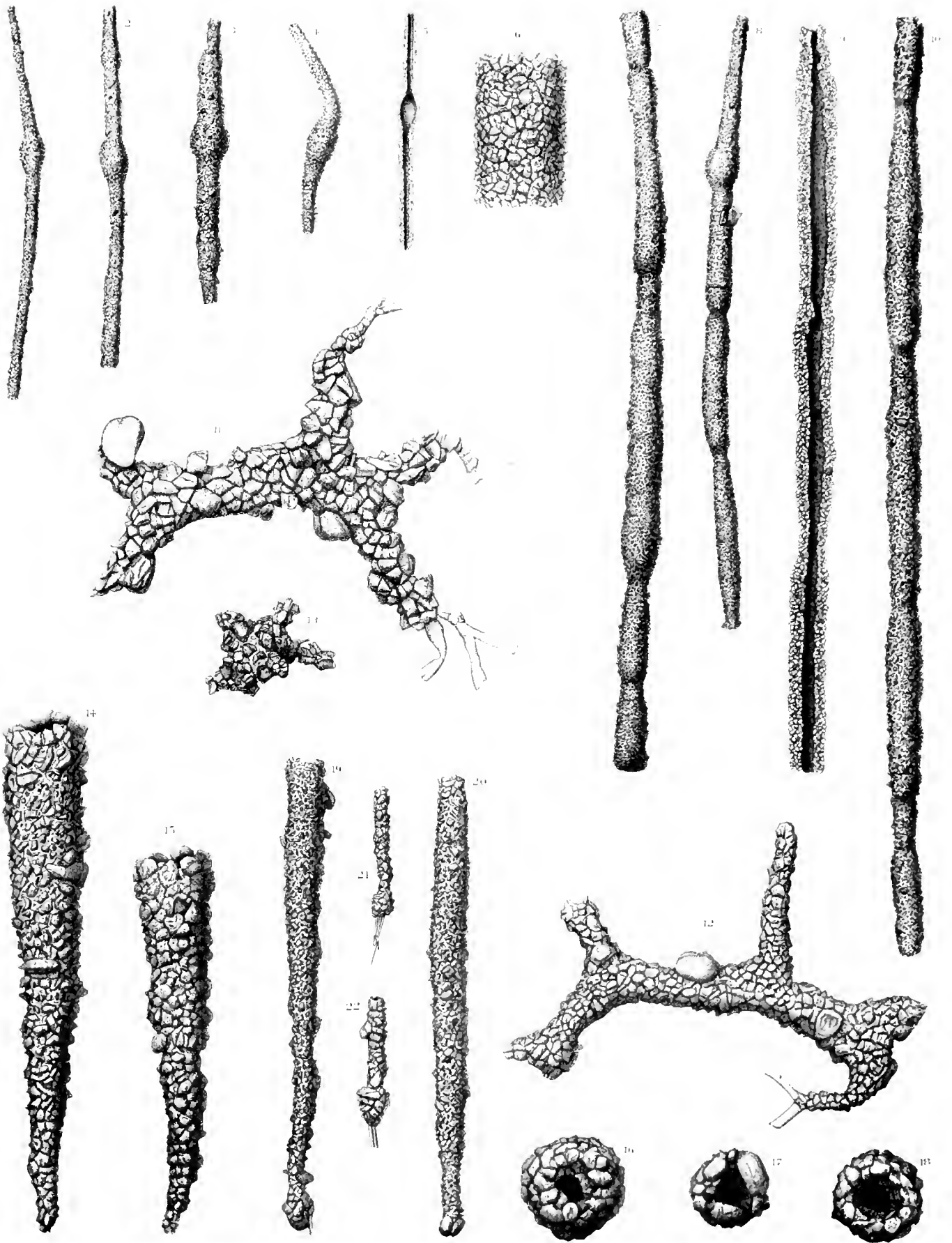


PLATE XXII.

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RHABDAMMINA—JACULELLA.

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RHABDAMMINA-JACULELLA.

PLATE XXIII.

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HYPERAMMINA.

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.. 4, 7-10.— <i>Hyperammina elongata</i> , Brady,	× 10	257
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.. 11-14. — <i>Hyperammina subnodosa</i> , n. sp.,	× 10	259
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.. 15-19.— <i>Hyperammina ramosa</i> , Brady,	× 16	261

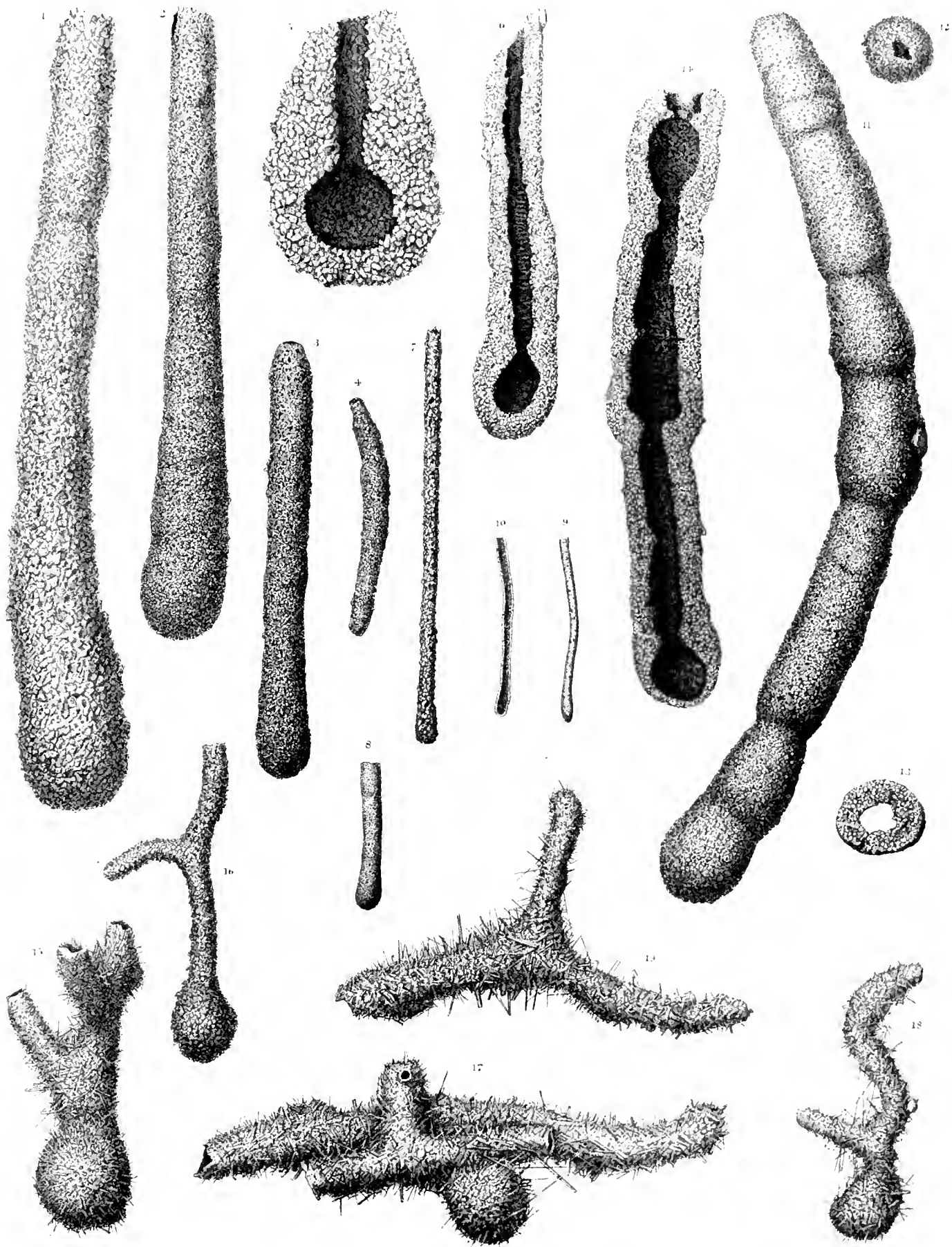


PLATE XXIV.

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HYPERAMMINA.—MARSIPELLA.

	Diam.	Page
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.. 20-22.— <i>Marsipella cylindrica</i> , Brady,	× 15	265

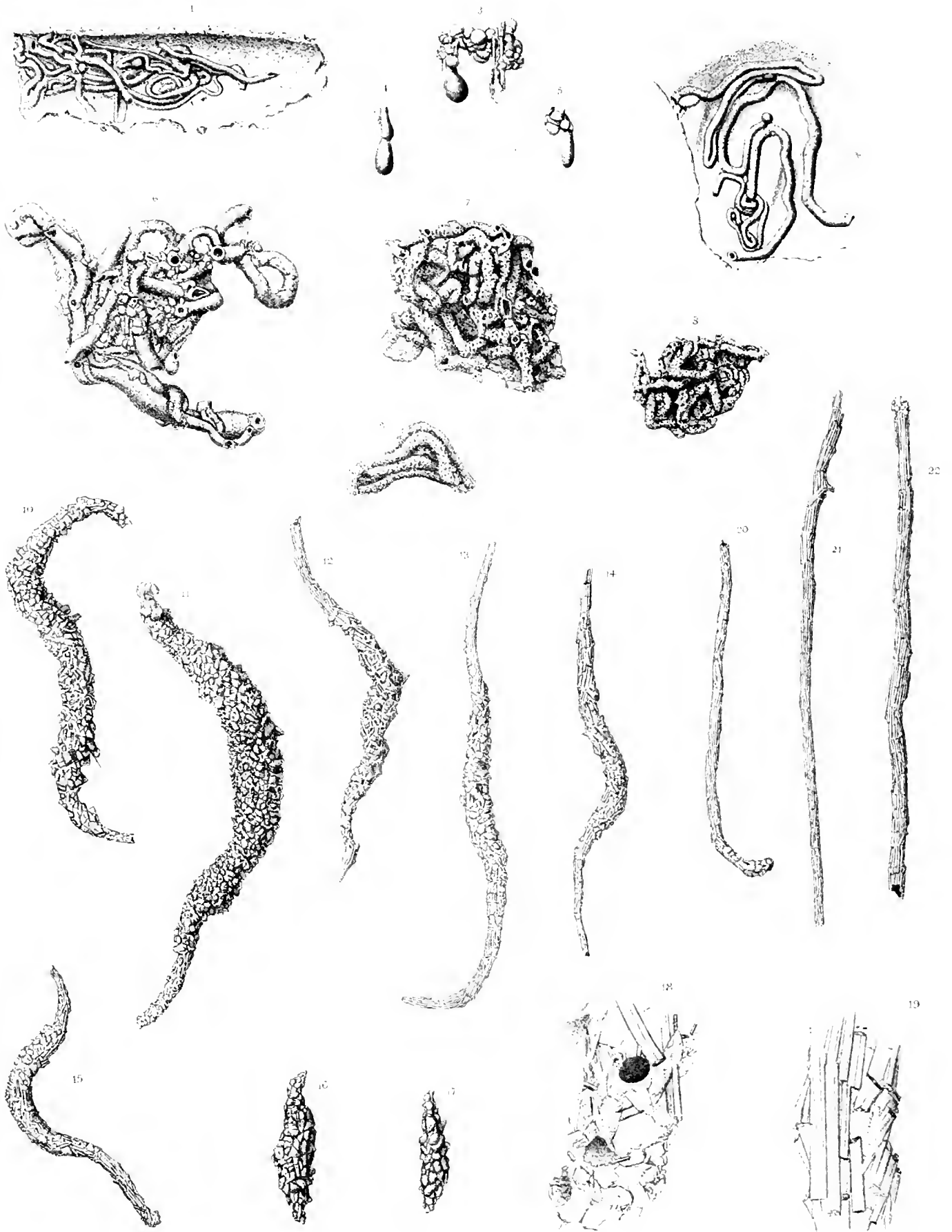


PLATE XXV.

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		Diam.	Page
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„ 8-12.—	<i>Technitella legumen</i> , Norman,		246
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	Figs. 18, 19. General aspect of the test,		
	Fig. 20. Specimen laid open transversely to show the thickness of the wall, and the comparatively small internal cavity,		

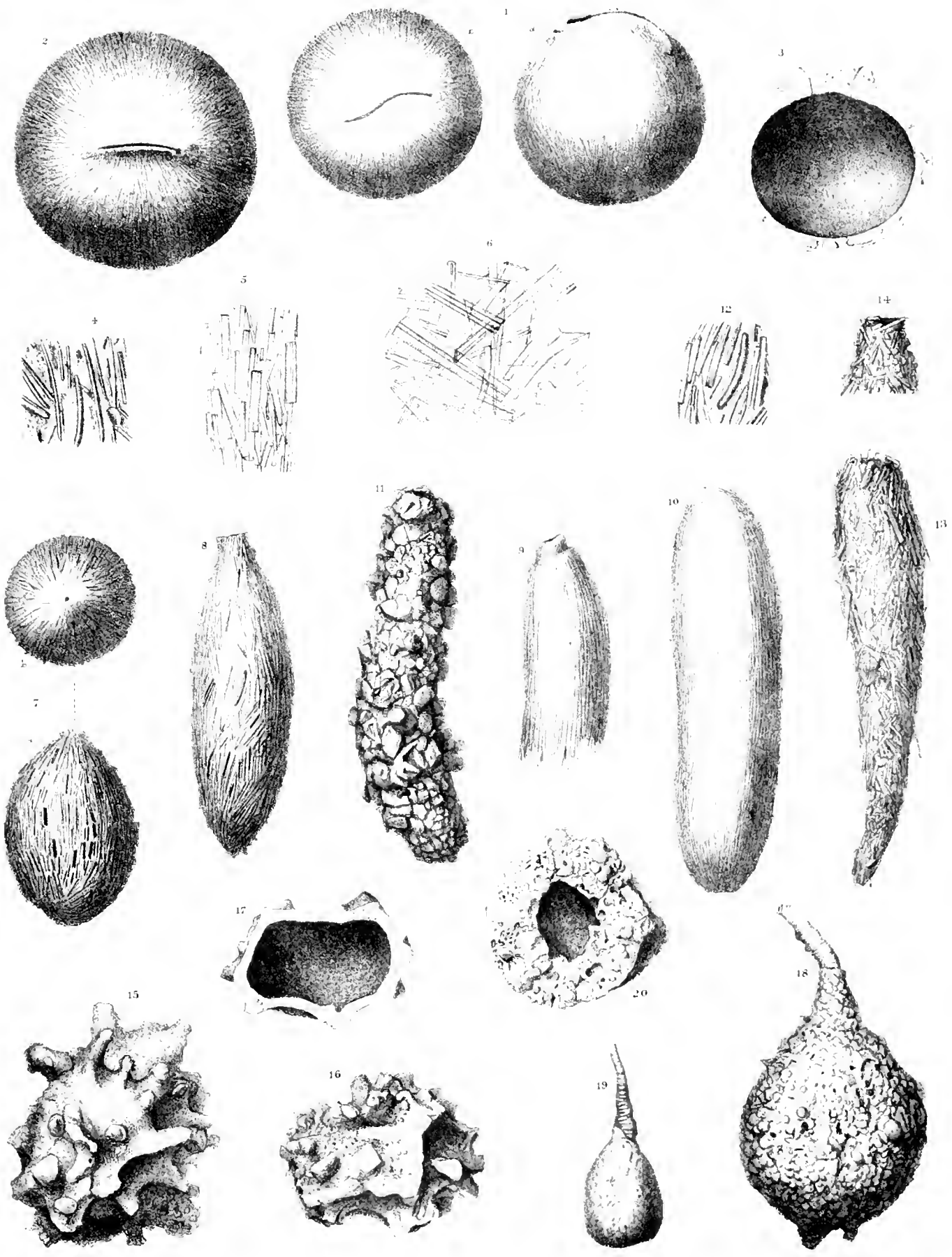


PLATE XXVI.

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PELOSINA.—HIPPOCREPINA.—BATHYSIPHON.

	Diam.	Page
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„ 15-20.— <i>Bathysiphon filiformis</i> , M. Sars.		248
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Fig. 19. Longitudinal section of the wall, with a mass of adherent dark-coloured sarcod.,	× 60	
Fig. 20. Longitudinal section, more highly magnified,	× 200	

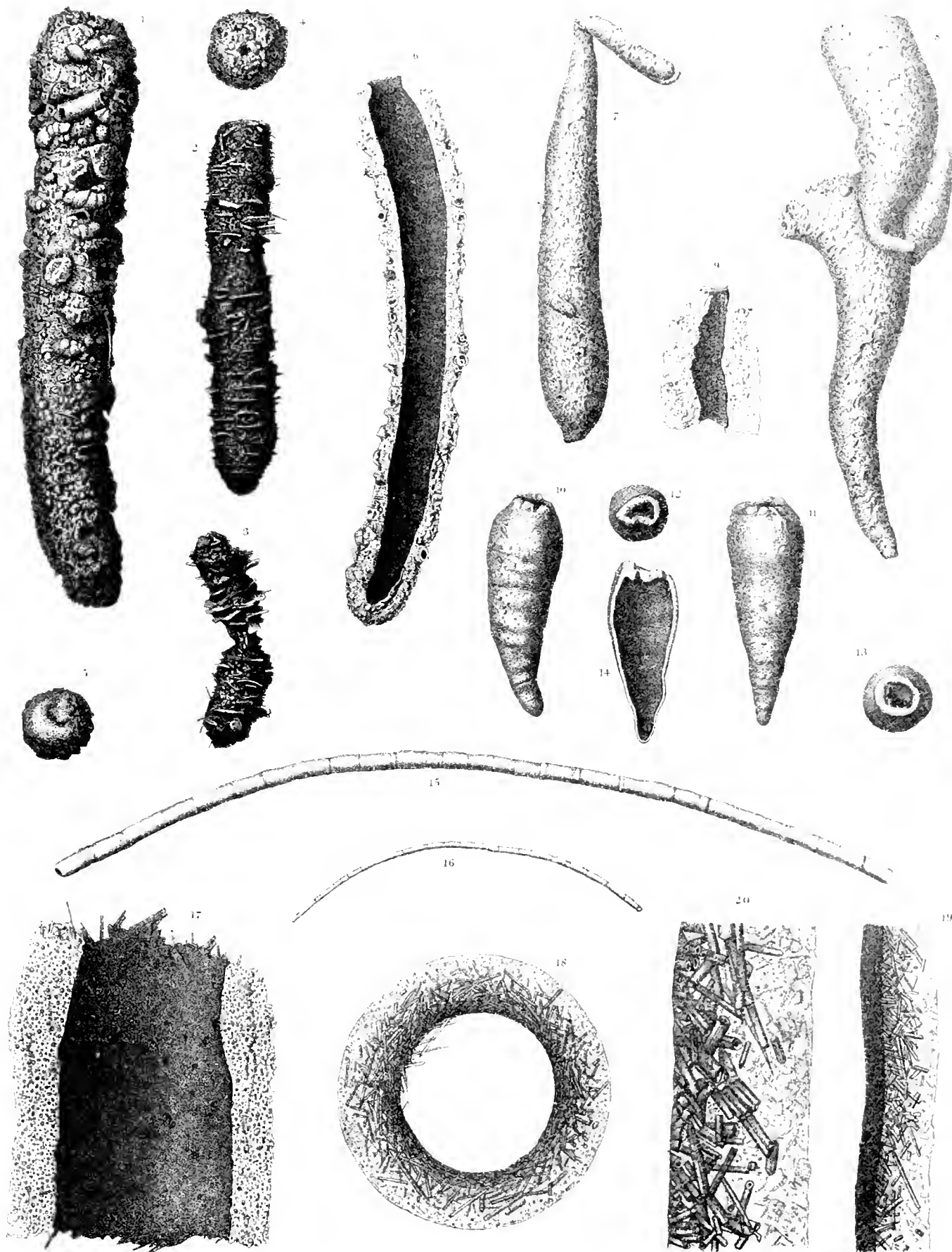


PLATE XXVII.

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ASCHEMONELLA.

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Fig. 14. Transparent section of a portion of a specimen.		
Fig. 15. Test laid open to show the interior.		

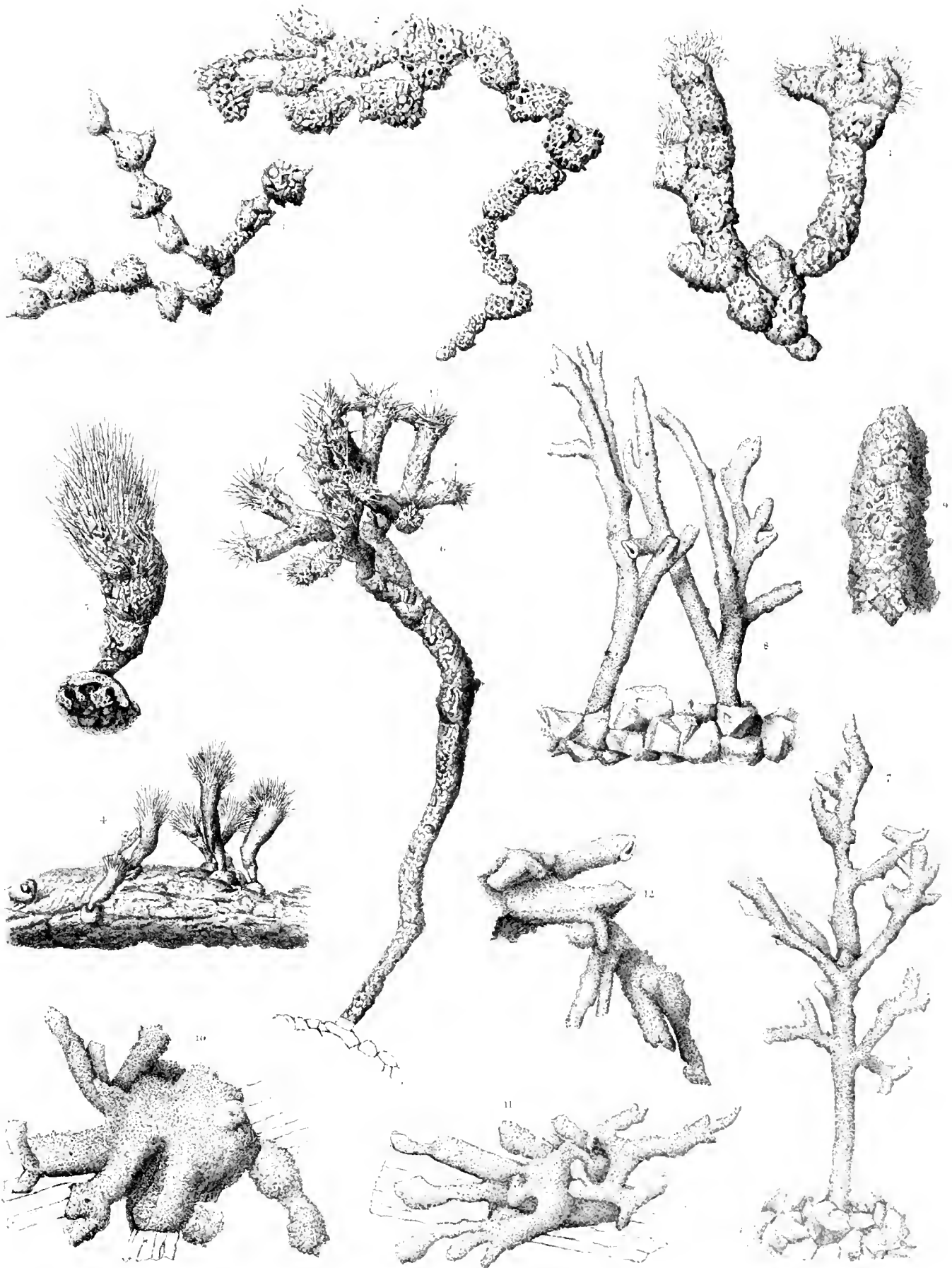


PLATE XXVII A.

PLATE XXVII. A.

ASCHEMONELLA.—HALIPHYSEMA.—DENDROPHRYA.

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ASCHEMONELLA HALIPHYSEMALOCENDROPHORA

PLATE XXVIII.

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Fig. 9. Specimen from sandy bottom, after treatment with hydrochloric acid; mounted in Canada balsam,	× 40	
Fig. 10. Specimen from Globigerina ooze, similarly treated,	× 40	
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Specimens growing on fragments of Nullipore.		

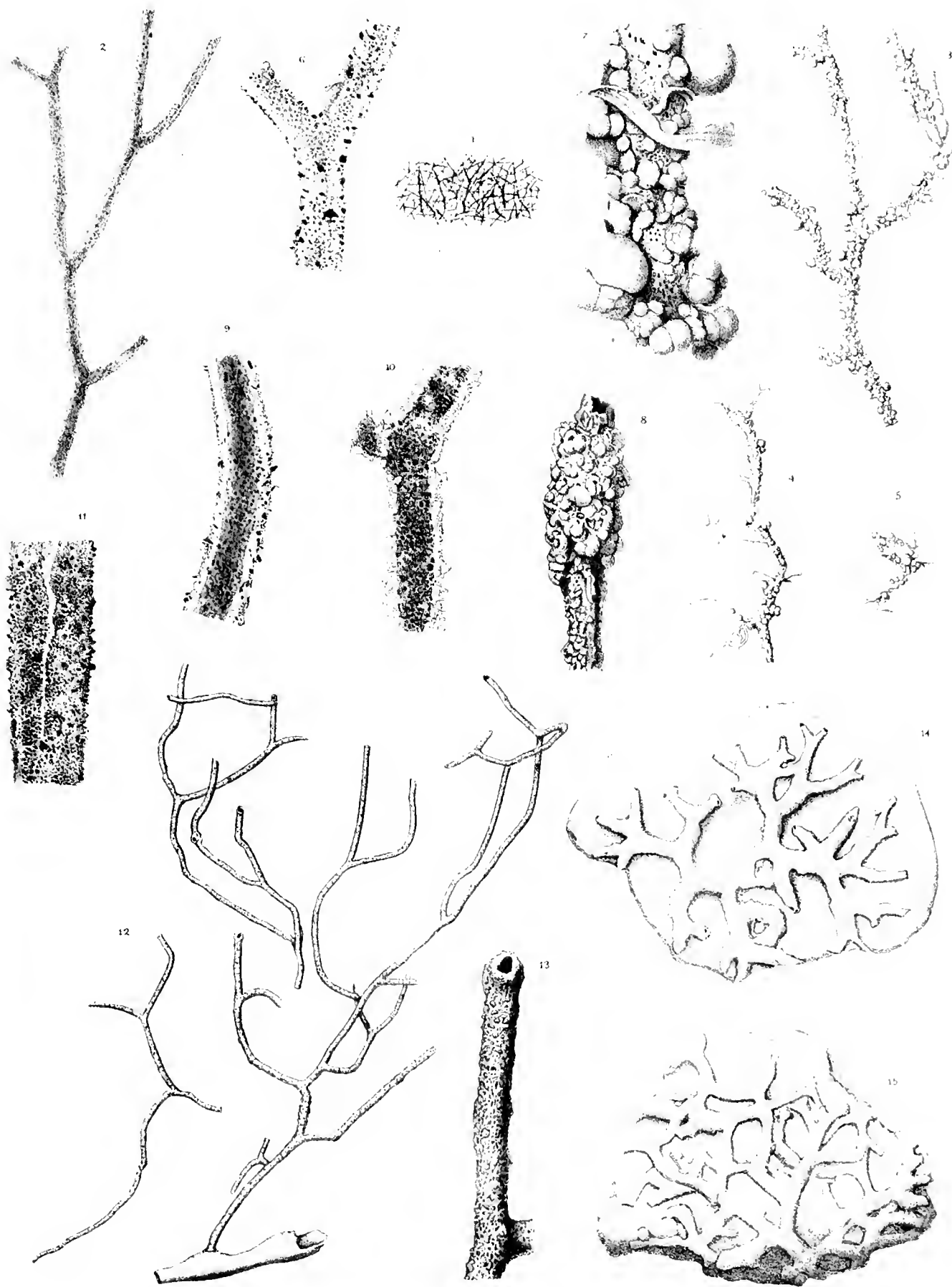


PLATE XXIX.

PLATE XXIX.

RHIZAMMINA.—BOTELLINA.

		Diam.	Page
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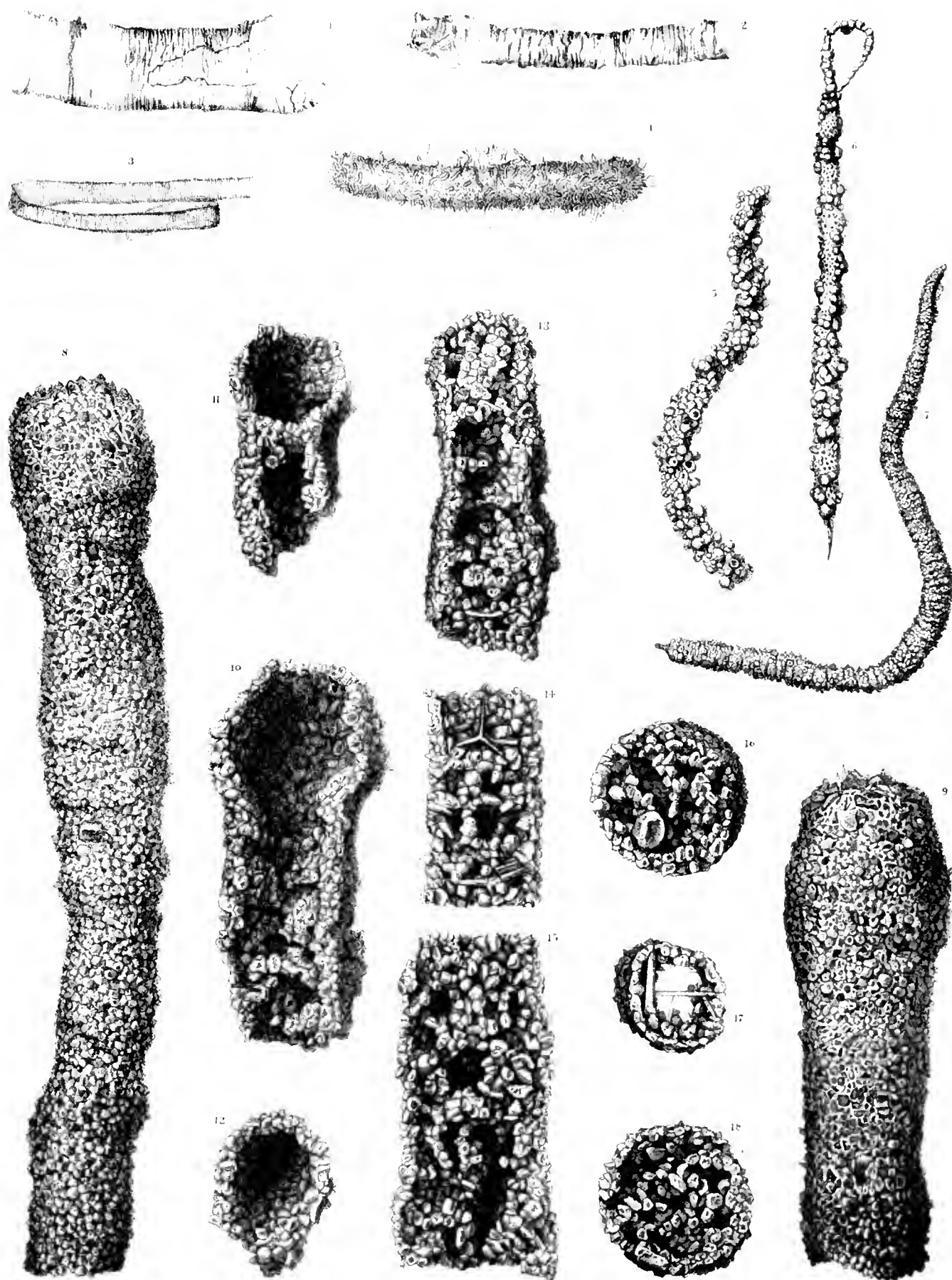


PLATE XXX.

PLATE XXX.

REOPHAN.

		Diam.	Page
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	<i>a</i> , Lateral aspect; <i>b</i> , peripheral aspect.		
„ 7-11.—	<i>Reophaer fusiformis</i> , Williamson, sp.. . . .	× 60	290
„ 12-17.—	<i>Reophaer scorpiurus</i> , Montfort,		291
	Fig. 12 <i>a</i> , 13. Lateral aspect; 12 <i>b</i> , oral aspect, . . .	× 30	
	Fig. 14. × 50 diam.; fig. 15, × 40; fig. 16, . . .	× 20	
	Fig. 17. Longitudinal section of a coarsely arenaceous test,	× 30	
„ 18-20.—	<i>Reophaer pibulijera</i> , n. sp..		292
	Figs. 18-20. Lateral aspect,	× 25	
	Fig. 19. Large terminal chamber with the cavity partially occupied by a smaller one.	× 10	
„ 21, 22.—	<i>Reophaer dentuliniformis</i> , Brady,		293
	Fig. 21. × 35 diam.; fig. 22,	× 40	
„ 23, 24.—	<i>Reophaer bacillaris</i> , Brady,		293
	Fig. 23. × 20 diam.; fig. 24,	× 17	

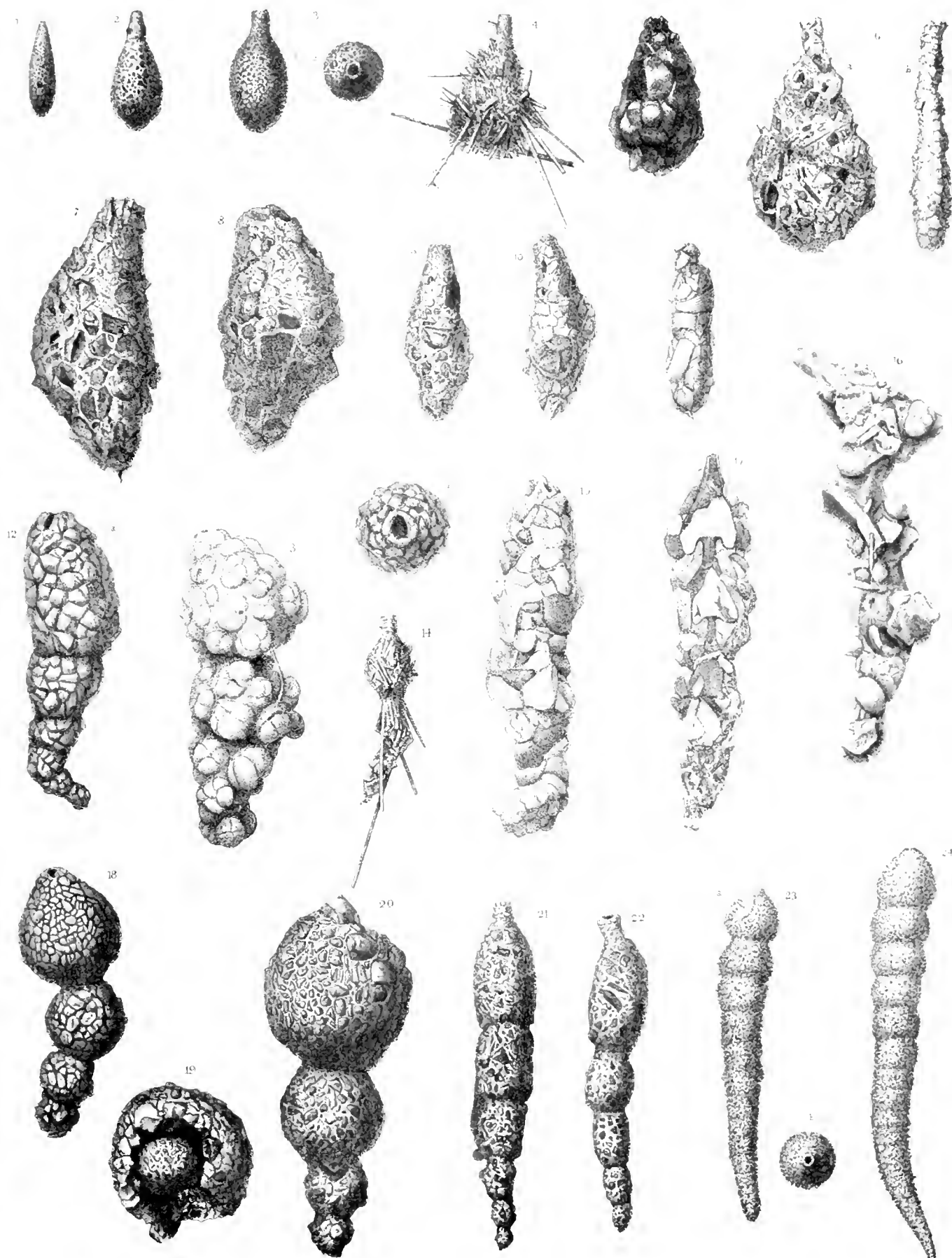
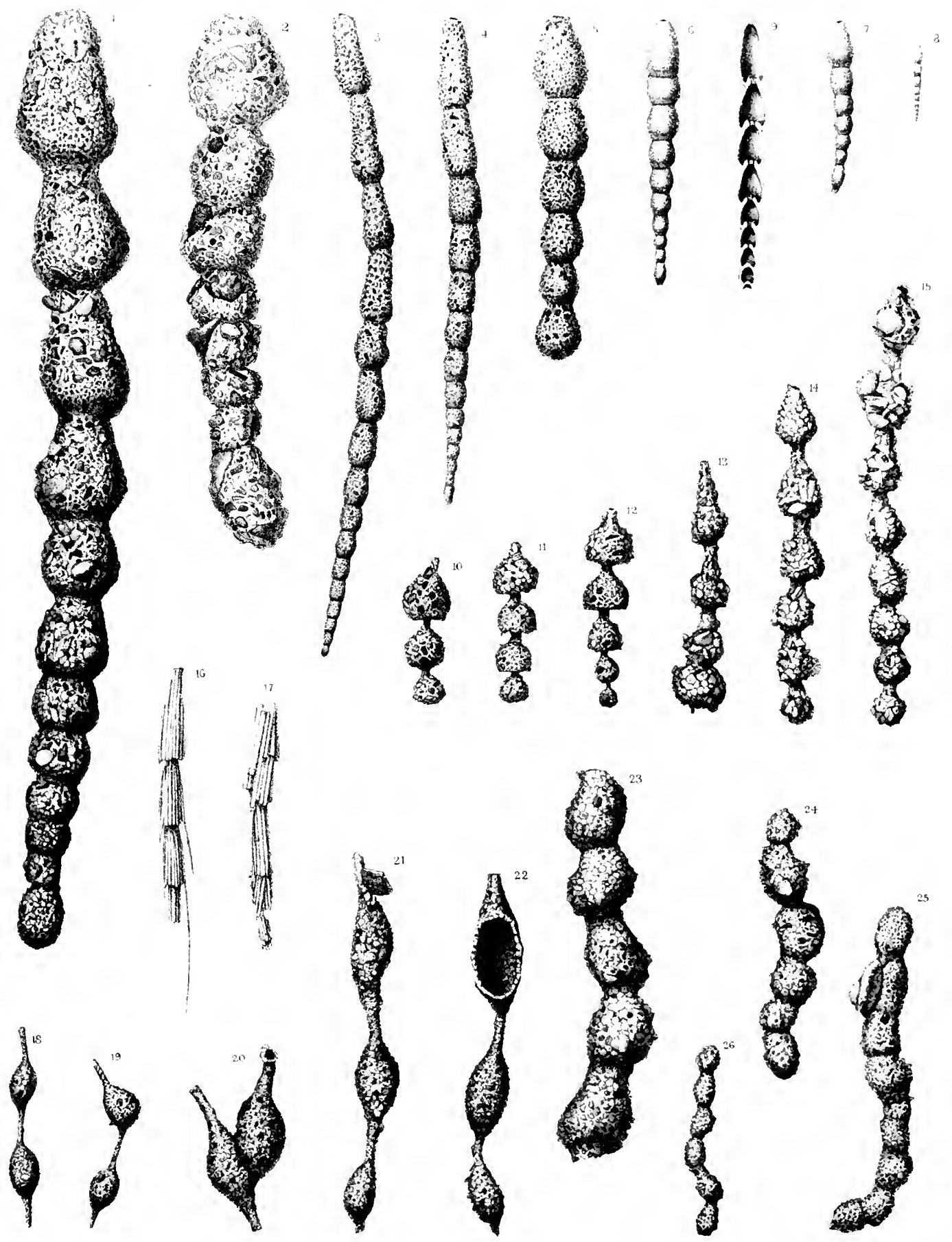


PLATE XXXI.

PLATE XXXI.

REOPHAX.

		Diam.	Page
Figures 1-9.— <i>Reophaex nodulosa</i> , Brady.	.	.	294
Fig. 1. Large specimen,	.	×	7
Fig. 2. Somewhat smaller specimen, after having been completely decalcified with hydrochloric acid,	.	×	7
Figs. 3-8. Specimens of various forms and dimensions,	.	×	10
Fig. 9. Test laid open longitudinally to show the interior,	.	×	10
„ 10-15.— <i>Reophaex guttifera</i> , Brady.	.	×	50
Specimens in various stages of growth.	.		295
„ 16, 17.— <i>Reophaex spiculifera</i> , Brady.	.	×	50
„ 18-22.— <i>Reophaex distans</i> , Brady.	.	×	15
„ 23-26.— <i>Reophaex adunca</i> , Brady.	.	×	30
	.		296



AT Hollick ad nat. del. et lith.

LITUOLA Reophax)

Hanhart sculp.

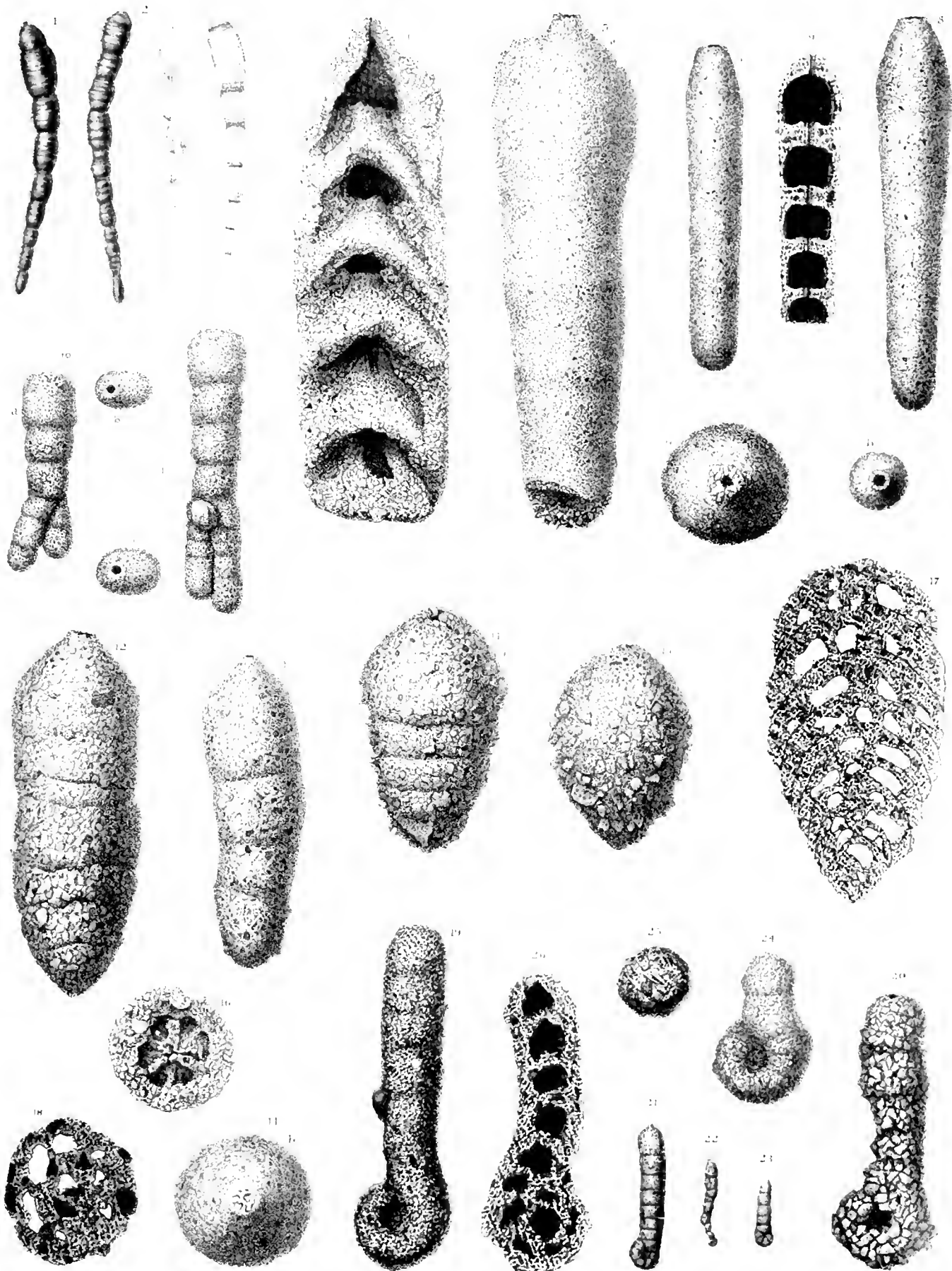
PLATE XXXII.

(ZOOLOG. CHALL. EXP.—PART XXII.—1883.)—Y.

PLATE XXXII.

REOPHAX.—HAPLOSTICHE.—HAPLOPHRAGMIUM.

		Diam.	Page
Figures 1-4.—	<i>Reophax membranacea</i> , Brady,	× 50	297
	Figs. 1, 2. Specimens mounted dry.		
	Fig. 4. Specimen mounted in Canada balsam and viewed by transmitted light.		
	Fig. 3. Specimen decalcified by hydrochloric acid, and mounted in Canada balsam.		
„ 5, 6.—	<i>Reophax sabulosa</i> , Brady,	× 9	298
	Fig. 5. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect.		
	Fig. 6. Specimen laid open longitudinally, to show the interior.		
„ 7-9.—	<i>Reophax cylindrica</i> , n. sp.,	× 20	299
	Figs. 7 <i>a</i> , 8. Lateral aspect; <i>b</i> , oral aspect.		
	Fig. 9. Specimen laid open longitudinally, to show the interior.		
„ 10, 11.—	<i>Reophax findens</i> , Parker,	× 40	299
	<i>a</i> , <i>a</i> , Lateral aspect; <i>b</i> , <i>b</i> , oral aspect.		
„ 12-18.—	<i>Haplostiche soldanii</i> , Jones and Parker, sp.,		318
	Fig. 12. Lateral aspect,	× 12	
	Figs. 13, 14 <i>a</i> , 15. Lateral aspect; fig. 14 <i>b</i> , oral aspect,	× 15	
	Fig. 16. Transverse fracture, showing the labyrinthic interior,	× 15	
	Fig. 17. Longitudinal section of the test,	× 15	
	Fig. 18. Transverse section,	× 15	
„ 19-26.—	<i>Haplophragmium agglutinans</i> , d'Orbigny, sp.,		301
	Fig. 19. Lateral aspect, × 25; figs. 20, 24, do.,	× 40	
	Figs. 21-23. Lateral aspect,	× 50	
	Fig. 25. Oral aspect,	× 40	
	Fig. 26. Specimen laid open longitudinally, to show the interior,	× 40	



"Helmsch adnat. set."

LITUOLA *Brachiolepta* *Brachiolepta*

PLATE XXXIII.

PLATE XXXIII.

HAPLOPHRAGMIUM.

		Diam.	Page
Figures 1-4.— <i>Haplophragmium pseudospirale</i> , Williamson, sp., .	×	35	302
Figs. 1, 2. Lateral aspect ; figs. 3, 4, oral aspect.			
„ 5-12.— <i>Haplophragmium calcareum</i> , n. sp., .	×	18	302
Figs. 5-9. Lateral aspect ; figs. 10, 11, oral aspect.			
Fig. 12. Horizontal section of the test.			
„ 13-16.— <i>Haplophragmium tenuimargo</i> , Brady, .	×	25	303
Figs. 13, 14. Lateral aspect ; fig. 15, oral aspect ; fig. 16, peripheral aspect.			
„ 17-19.— <i>Haplophragmium cassis</i> , Parker, sp., .	×	35	304
Figs. 17, 18. Lateral aspect ; fig. 19, peripheral aspect.			
„ 20-25.— <i>Haplophragmium foliaceum</i> , Brady, .	×	40	304
Figs. 20-23. Specimens in various stages of growth ; lateral aspect.			
Fig. 24. Specimen mounted in Canada balsam and viewed by transmitted light.			
Fig. 25. Peripheral aspect.			
„ 26-28.— <i>Haplophragmium emaciatum</i> , n. sp., .	×	25	305
Figs. 26, 27. Lateral aspect ; fig. 28, peripheral aspect.			

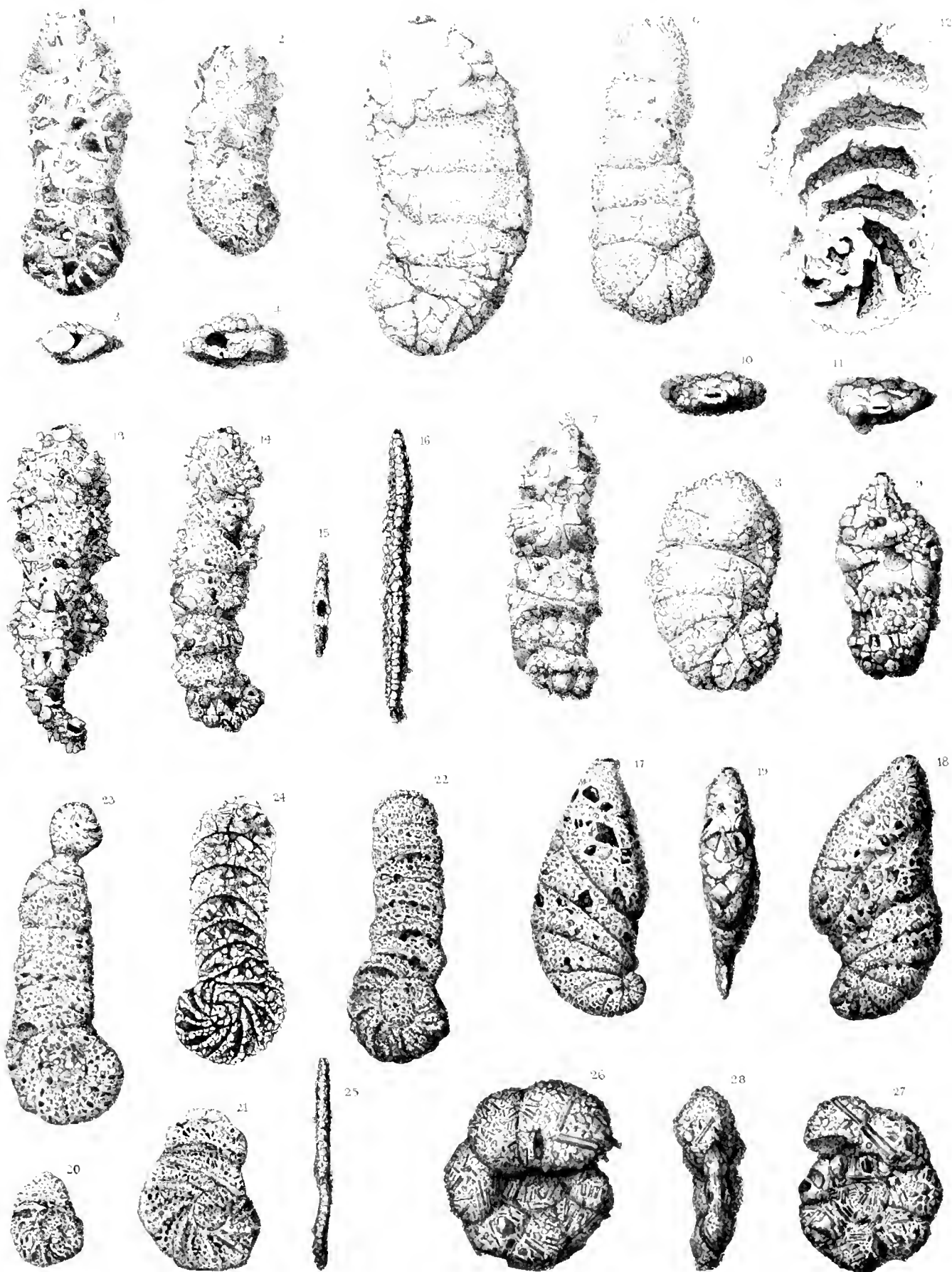


PLATE XXXIV.

PLATE XXXIV.

HAPLOPHRAGMIUM.

		Diam.	Page
Figures 1-4.— <i>Haplophragmium fontinense</i> , Terquem,	×	20	305
Figs. 1, 2, 3 <i>a</i> , 4. Lateral aspect ; 3 <i>b</i> , peripheral aspect.			
„ 5, 6.— <i>Haplophragmium rotulatum</i> , Brady.	×	50	306
Figs. 5, 6. Lateral aspect ; <i>b</i> , <i>b</i> , peripheral aspect.			
„ 7-10, 14.— <i>Haplophragmium latidorsatum</i> , Bornemann, sp.,			307
Figs. 7 <i>a</i> , 8 <i>a</i> . Lateral aspect ; <i>b</i> , <i>b</i> , peripheral aspect,	×	20	
Fig. 9. Specimens built into the wall of an annelid- tube ; the lower test showing a cribrate aperture,	×	15	
Fig. 10. Horizontal section of the test.			
Fig. 14. Small compressed variety, occurring off Kandavu,	×	40	
„ 11-13.— <i>Haplophragmium scitulum</i> , Brady.	×	40	308
Figs. 11 <i>a</i> , 12. Lateral aspect ; 11 <i>b</i> , peripheral aspect.			
Fig. 13. Horizontal section of the test.			
„ 15-18.— <i>Haplophragmium glomeratum</i> , Brady,	×	100	309
Figs. 15, 16. Lateral aspect ; figs. 17, 18, peripheral aspect.			

PLATE XXXV.

PLATE XXXV.

HAPLOPHRAGMIUM.—PLACOPSILINA.

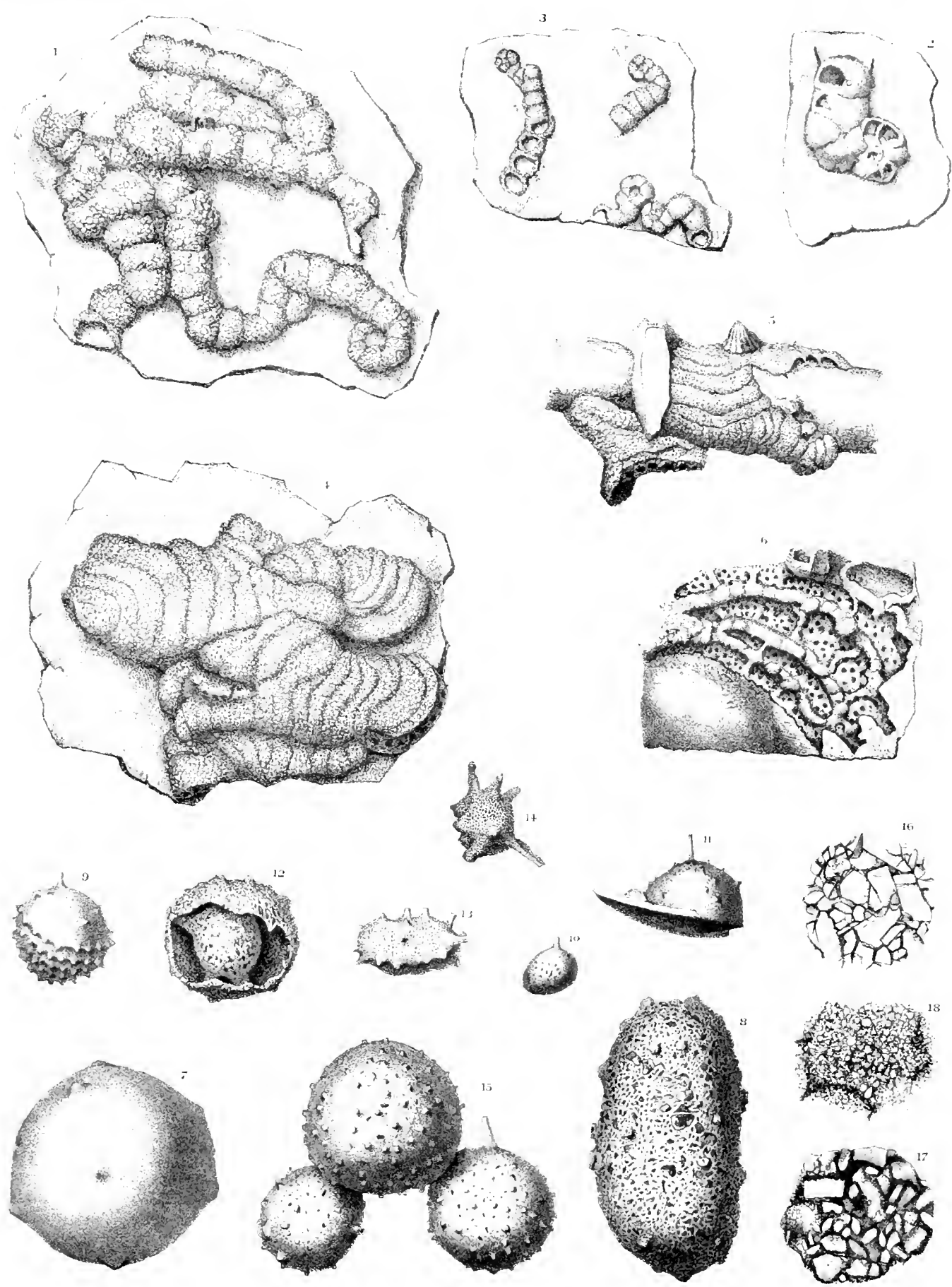
		Diam.	Page
Figures 1-5.—	<i>Haplophragmium canariense</i> , d'Orbigny, sp., . . . . .	.	310
	Figs. 1, 2 <i>a</i> , 3 <i>a</i> . Lateral aspect; <i>b</i> , <i>b</i> . peripheral aspect,	× 50	
	Fig. 4. <i>a</i> . Lateral aspect; <i>b</i> , peripheral aspect,	× 30	
	Fig. 5. Monstrous specimen,	× 50	311
.. 6-8.—	<i>Haplophragmium nanum</i> , Brady, . . . . .	.	311
	Fig. 6. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect,—typical form.	× 120	
	Fig. 7. Superior aspect; fig. 8, peripheral aspect,—irregularly built specimens,	× 60	
.. 9.—	<i>Haplophragmium turbinatum</i> , Brady,	× 40	312
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
.. 10, 11.—	<i>Haplophragmium globigeriniforme</i> , Parker and Jones, sp.,	× 25	312
	Fig. 10. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
	Fig. 11. Adherent specimen.		
.. 12-15.—	<i>Haplophragmium anceps</i> , n. sp., . . . . .	.	313
	Fig. 12. Superior aspect,	× 25	
	Figs. 13-15. Lateral aspect,	× 20	
.. 16, 17.—	<i>Placopsilina bulla</i> , Brady,	× 20	315
	Fig. 16. Superior aspect; fig. 17, lateral aspect.		
	Specimens growing adherent to fragments of <i>Rhabdammina</i> .		
.. 18, 19.—	<i>Placopsilina vesicularis</i> , Brady,	× 12	316

PLATE XXXVI.

PLATE XXXVI.

PLACOPSILINA.—BDELLOIDINA.—THURAMMINA.

			Diam.	Page
Figures 1-3.	— <i>Placopsilina cenomana</i> , d'Orbigny, sp.	.	.	315
	Fig. 1,	.	×	15
	Fig. 2,	.	×	30
	Fig. 3,	.	×	50
„ 4-6.	— <i>Bdelloidina aggregata</i> , Carter,	.	.	319
	Figs. 4, 5. General aspect of the parasitic test,	.	×	15
	Fig. 6. Portion laid open to show the interior,	.	×	30
„ 7-18.	— <i>Thurammia papillata</i> , Brady,	.	.	321
	Fig. 7. Globular specimen; fig. 8, oval specimen,	.	×	30
	Figs. 9, 10. Specimens with tubulated aperture,	.	×	50
	Fig. 11. Adherent test,	.	×	50
	Fig. 12. Specimen with an internal chamber,	.	×	50
	Figs. 13, 14. Internal or primordial chambers, outer tests removed,	.	.	50
	Fig. 15. Specimen formed of three adherent spheres,	.	×	50
	Figs. 16-18. Portions of specimens from different localities, mounted in Canada balsam; showing the variability of the test in point of minute structure,	.	×	100



LITUOLA, Pliopoma, Pseudopoma, THURAMMINA

PLATE XXXVII.

PLATE XXXVII.

THURAMMINA.—CYCLAMMINA.

		Diam.	Page
Figure 1.—	<i>Thurammina compressa</i> , Brady.	× 50	324
	<i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect.		
„ 2-7.—	<i>Thurammina albicans</i> , Brady.		323
	Figs. 2-5. Lateral aspect.	× 50	
	Fig. 6. Specimen laid open, to show the thickness of the walls and the character of the internal cavity.	× 50	
	Fig. 7. Section of the test, showing its minute structure.	× 100	
„ 8-16.—	<i>Cyclammina cancellata</i> , Brady.		351
	Figs. 8 <i>a</i> , 9 <i>a</i> , 10. Lateral aspect ; figs. 8 <i>b</i> , 9 <i>b</i> , 11, peripheral aspect.	× 15	
	Figs. 12, 13. Specimens laid open horizontally to show the internal structure.	× 15	
	Fig. 14. Horizontal section of the test viewed by transmitted light.	× 15	
	Fig. 15. Part of a specimen laid open transversely.	× 15	
	Fig. 16. Exterior with a portion of the imperforate coating scraped away, showing the tubulated structure immediately beneath.	× 30	
„ 17-19.—	<i>Cyclammina orbicularis</i> , Brady.	× 15	353
	Fig. 17. Specimen laid open transversely showing the internal structure.		
	Figs. 18 <i>a</i> , 19. Lateral aspect ; 18 <i>b</i> , peripheral aspect.		
„ 20-23.—	<i>Cyclammina pusilla</i> , Brady.		353
	Figs. 20 <i>a</i> , 21. Lateral aspect ; 20 <i>b</i> , peripheral aspect.	× 15	
	Fig. 22. Specimen laid open horizontally to show the interior.	× 15	
	Fig. 23. Portion of the same more highly magnified.	× 30	

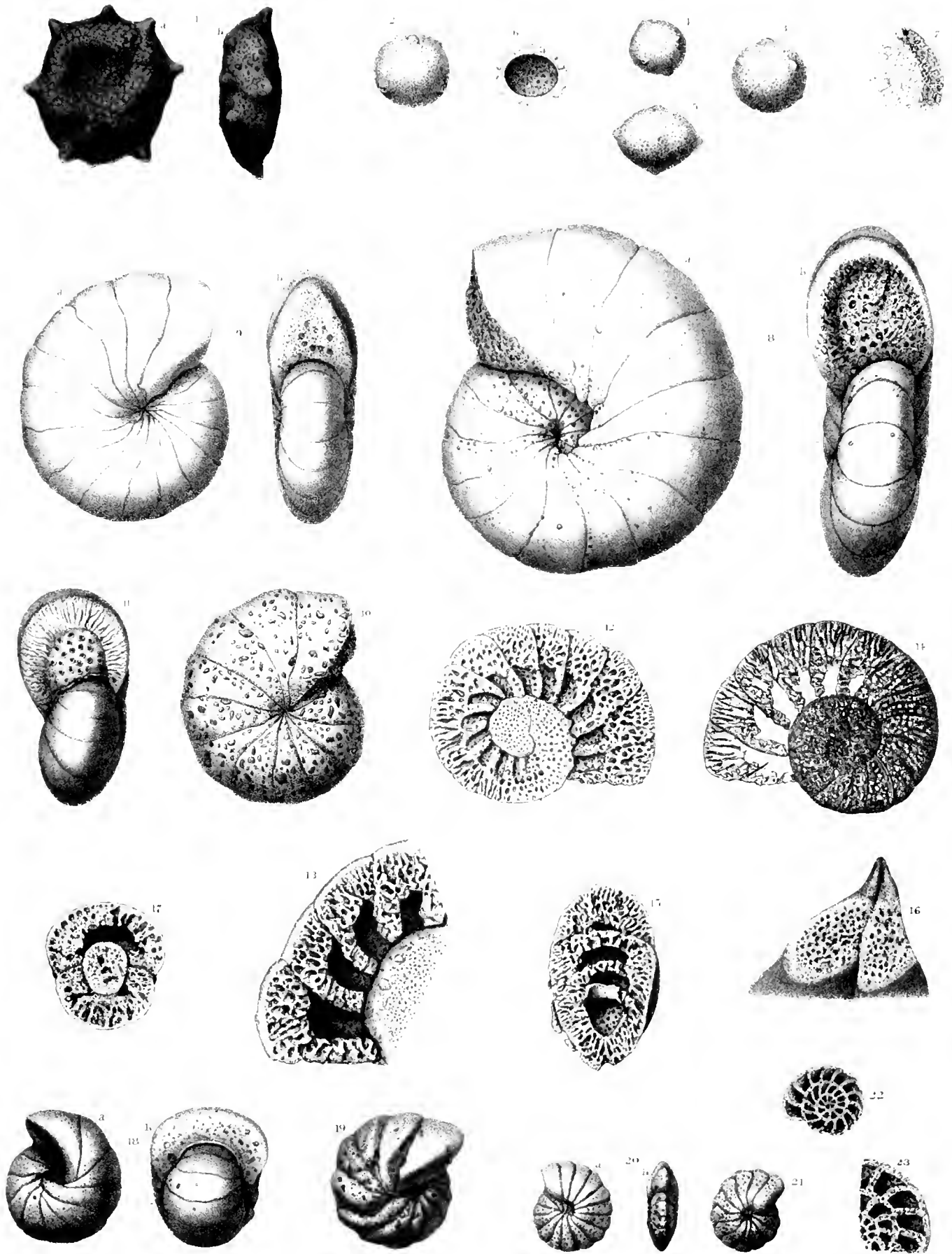


PLATE XXXVIII.

PLATE XXXVIII.

AMMODISCUS.

		Diam.	Page
Figures 1-3.—	<i>Ammodiscus incertus</i> , d'Orbigny, sp., . . . . .	.	330
	Fig. 1. <i>a</i> , Lateral aspect; <i>b</i> , peripheral aspect,	× 15	
	Fig. 2. Small specimen,	× 25	
	Fig. 3. Test laid open horizontally, showing the spiral cavity and the relative thickness of the wall,	× 15	
„ 4-6.—	<i>Ammodiscus tenuis</i> , Brady, . . . . .	.	332
	Fig. 4. Small specimen,	× 25	
	Figs. 5 <i>a</i> , 6. Large examples, lateral aspect; 5 <i>b</i> , peripheral aspect,	× 15	
„ 7-9.—	<i>Ammodiscus gordialis</i> , Jones and Parker, sp.,	× 70	333
„ 10-16.—	<i>Ammodiscus charoides</i> , Jones and Parker, sp.,	× 70	334
	Fig. 16. Section of the test.		
„ 17-19.—	<i>Ammodiscus shoncanus</i> , Siddall, sp.,	× 100	335
	<i>a, a</i> , Lateral aspect; <i>b, b</i> , oral aspect.		
„ 20-22.—	<i>Ammodiscus spectabilis</i> , Brady,	× 12	336

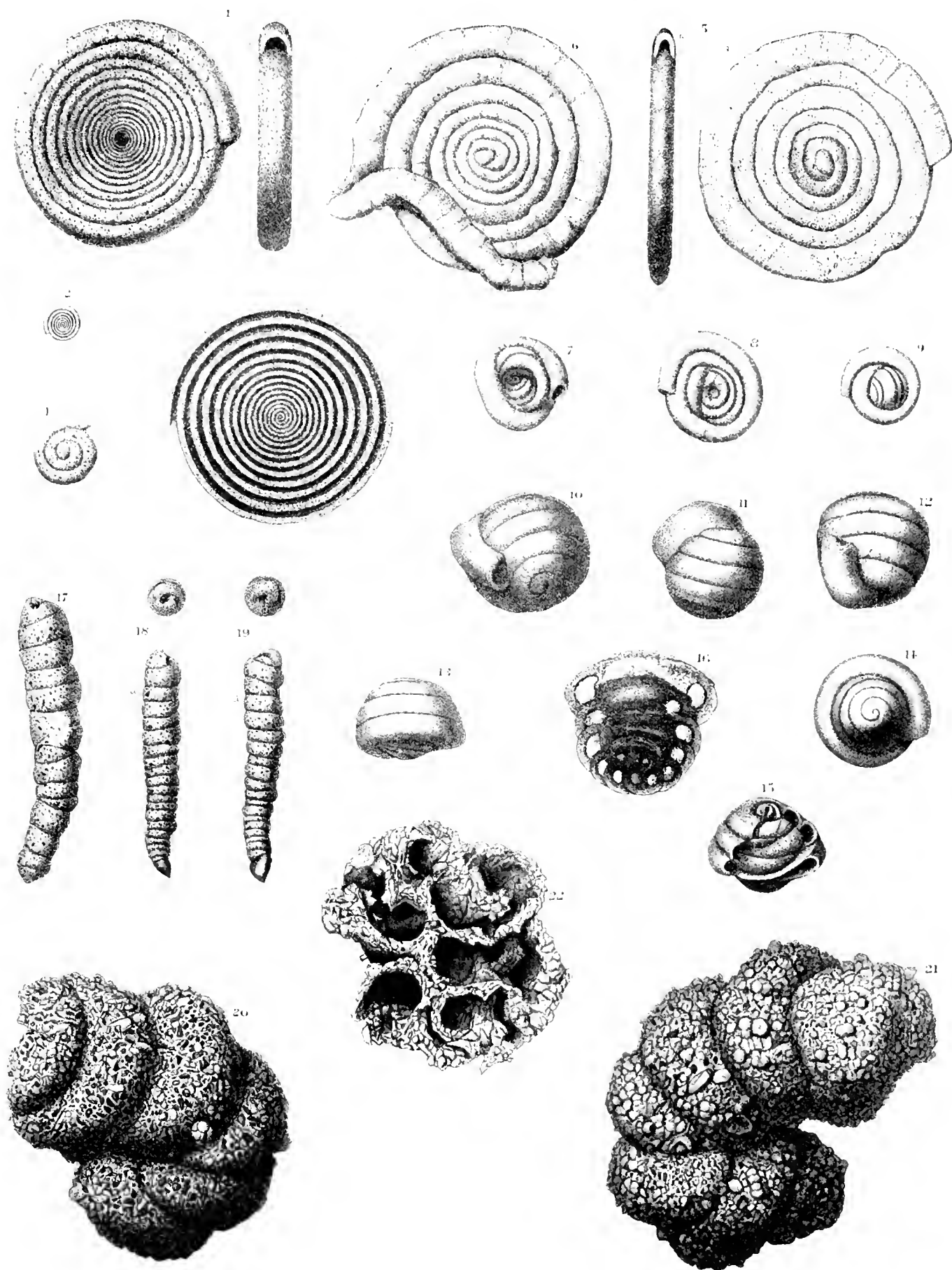


PLATE XXXIX.

PLATE XXXIX.

HORMOSINA.

		Diam.	Page
Figures 1-6.—	<i>Hormosina globulifera</i> , Brady,	× 15	326
	Figs. 1-1 <i>a</i> , Lateral aspect; 1 <i>b</i> , oral aspect.		
	Fig. 5. Anomalous two-chambered specimen.		
	Fig. 6. Fragment showing the aperture from the interior side.		
„ 7-9.—	<i>Hormosina ovicula</i> , Brady,	× 15	327
	Figs. 7, 8 <i>a</i> , 9. Lateral aspect; 8 <i>b</i> , oral aspect.		
„ 10-13.—	<i>Hormosina monile</i> , Brady,	× 10	328
„ 14-18.—	<i>Hormosina carpenteri</i> , Brady,	× 10	327
	Fig. 18. Longitudinal section of the test.		
„ 19-23.—	<i>Hormosina normani</i> , Brady,	× 10	329
	Fig. 23. Fragment showing a portion of the interior of two chambers with the apertures.		

PLATE XL.

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PLATE XL.

TROCHAMMINA.

			Diam.	Page
Figures 1-3.	<i>Trochammina proteus</i> , Karrer,	×	25	341
„ 4-7.	<i>Trochammina lituiformis</i> , Brady,	×	20	342
„ 8, 9.	<i>Trochammina conglobata</i> , n. sp.,	×	30	341
„ 10-12.	<i>Trochammina coronata</i> , Brady,	×	20	340
	Figs. 10, 11 <i>a</i> , Lateral aspect ; 11 <i>b</i> , peripheral aspect.			
	Fig. 12. Test laid open horizontally to show the interior.			
„ 13-16.	<i>Trochammina trullissata</i> , Brady,			342
	Figs. 13 <i>a</i> , 14 <i>a</i> . Lateral aspect ; <i>b</i> , <i>b</i> , peripheral aspect,	×	30	
	Fig. 15. Lateral aspect,	×	50	
	Fig. 16. Inner surface of the test,	×	60	
„ 17, 18.	<i>Trochammina ringens</i> , Brady,			343
	Fig. 17. <i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect,	×	45	
	Fig. 18. <i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect,	×	30	
„ 19-23.	<i>Trochammina galeata</i> , Brady,	×	50	344
	Figs. 19-22. Lateral aspect ; fig. 23, peripheral aspect.			

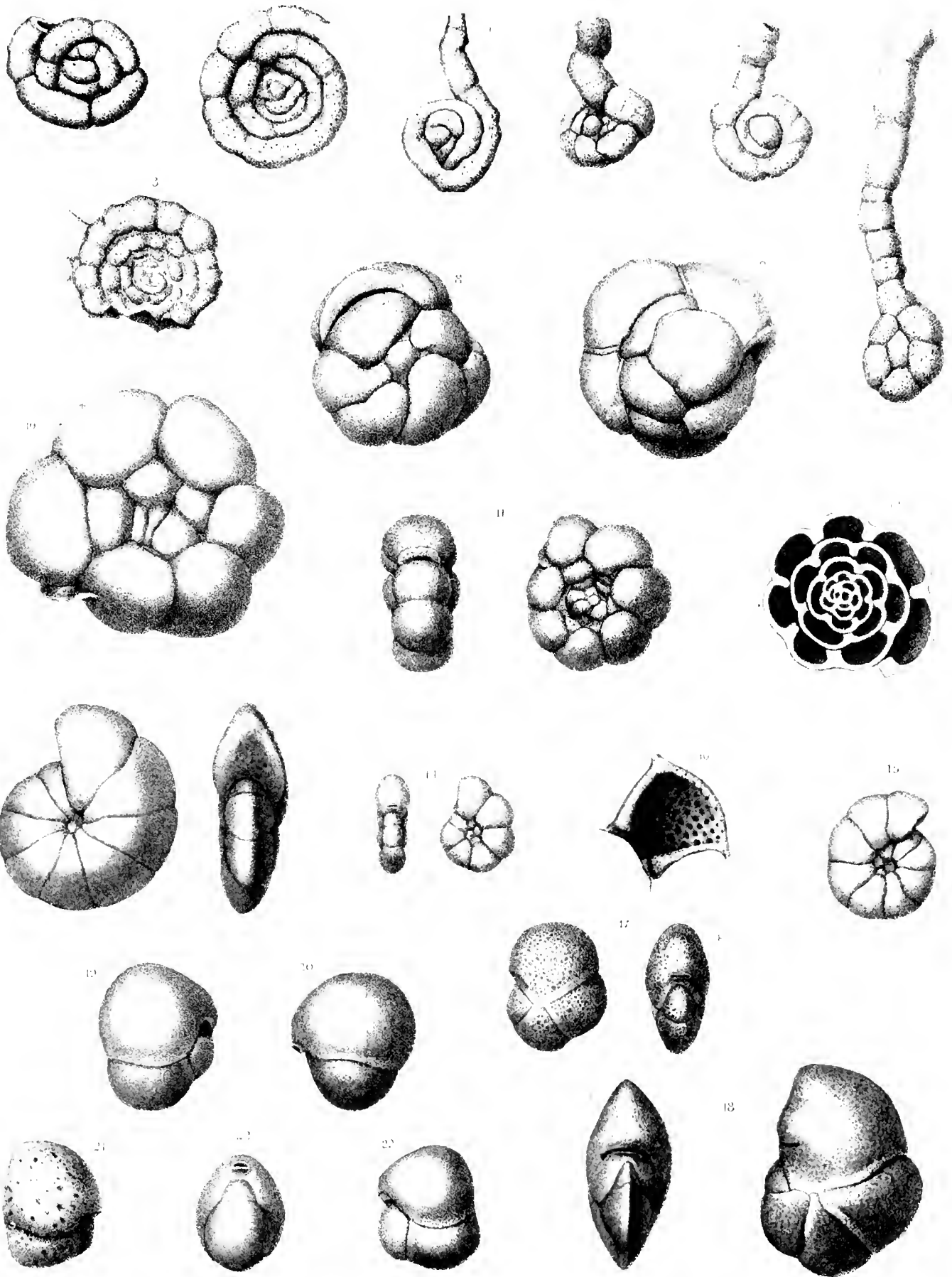


PLATE XLI.

PLATE XLI.

TROCHAMMINA.—CARTERINA.—WEBBINA.

		Diam.	Page
Figures	1, 2.— <i>Trochammina pauciloculata</i> , Brady,	× 50	344
	<i>a, a</i> , Superior lateral aspect; <i>b, b</i> , inferior lateral aspect; <i>c, c</i> , peripheral aspect.		
„	3.— <i>Trochammina squamata</i> , Jones and Parker,	× 50	337
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„	4.— <i>Trochammina inflata</i> , Montagu, sp.,	× 50	338
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„	5, 6.— <i>Trochammina nitida</i> , Brady,	× 50	339
	Figs. 5 <i>a</i> , 6. Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peri- pheral aspect.		
„	7–10.— <i>Carterina spiculotesta</i> , Carter, sp.,		346
	Fig. 7 <i>a</i> , Superior aspect; <i>b</i> , inferior aspect,	× 50	
	Fig. 8. Young specimen,	× 50	
	Figs. 9, 10. Fragments of the test mounted in Canada balsam, showing the form and arrangement of the spicules,	× 100	
„	11.— <i>Webbina hemispharica</i> , Jones, Parker, and Brady,	× 25	350
„	12–16.— <i>Webbina clarata</i> , Jones and Parker,	× 25	349
	Figs. 12, 13. Adherent specimens.		
	Fig. 14. Small specimen with orifice on the superior surface.		
	Fig. 15. Inferior aspect, showing the cavity of the test.		
	Fig. 16. Long tubular neck, adherent to <i>Gilobigerinae</i> .		

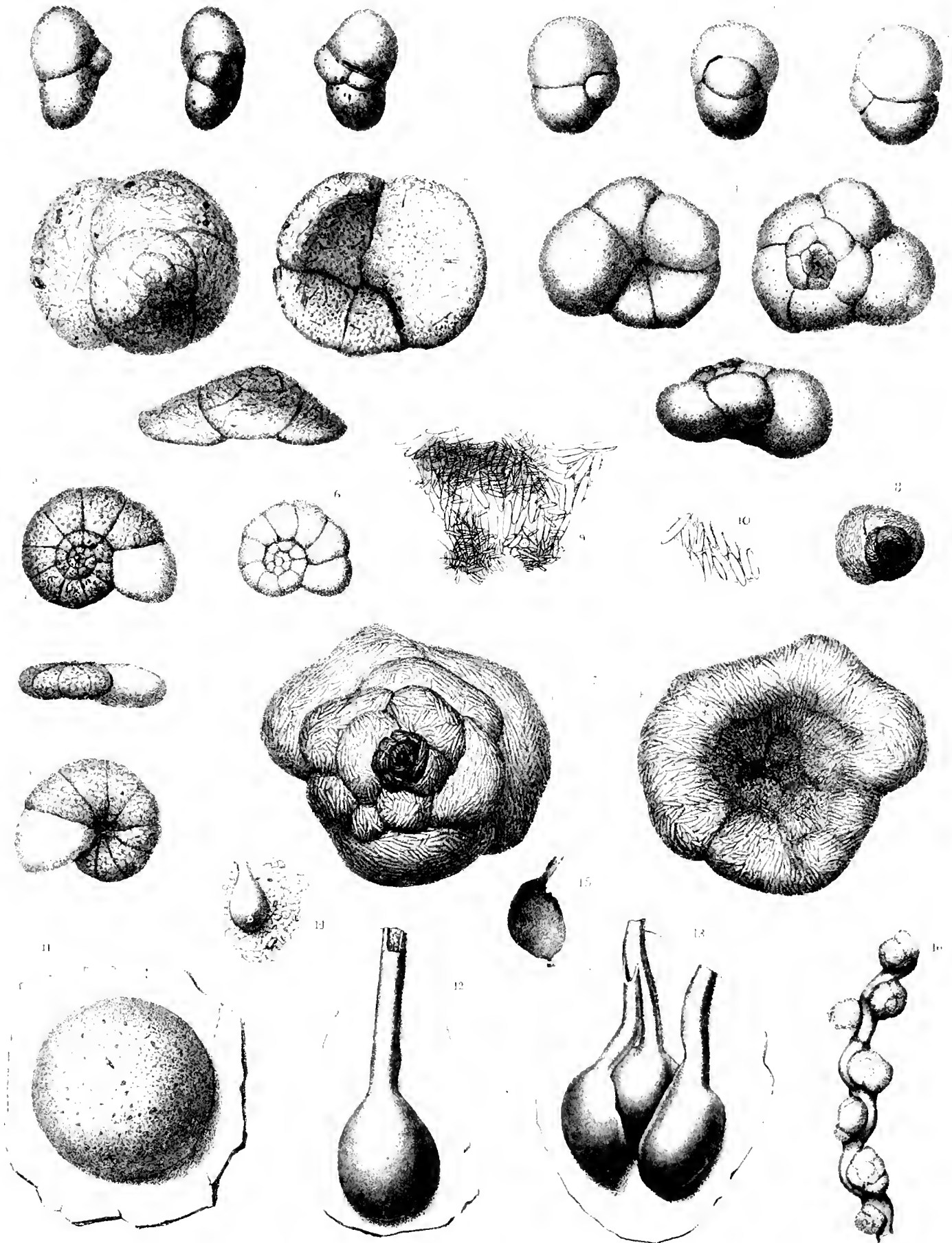


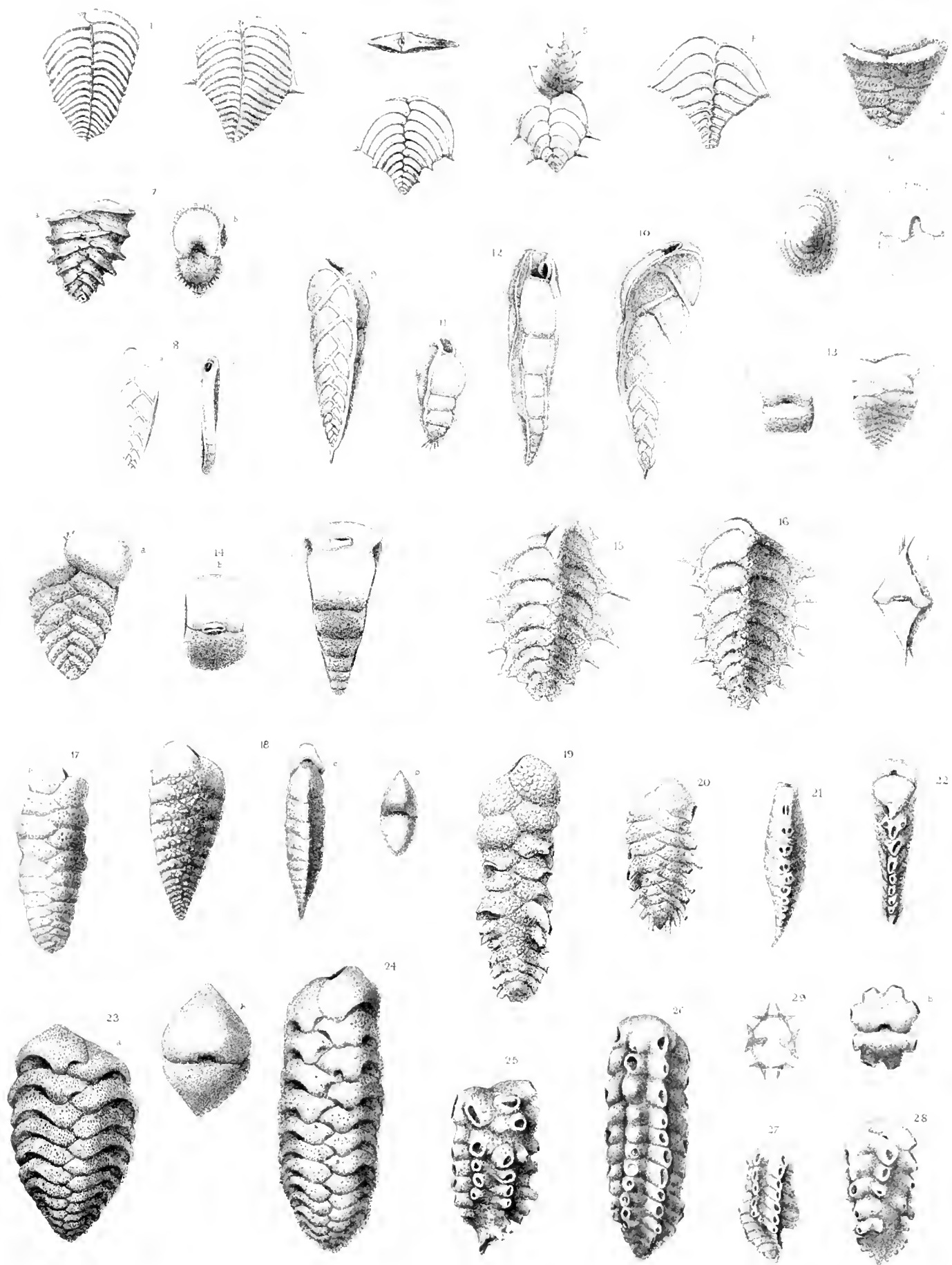
PLATE XLII.

(ZOOLOGICAL EXPERIMENT.—PART XXII.—1883.)—Y

PLATE XLII.

TEXTULARIA.

		Diam.	Page
Figures 1-5.—	<i>Textularia folium</i> , Parker and Jones,	× 60	357
	Figs. 1-4. Lateral aspect ; <i>b</i> , oral aspect.		
	Fig. 5. Double specimen.		
„ 6.—	<i>Textularia inconspicua</i> , n. sp.,	× 70	357
	<i>a</i> , Lateral aspect ; <i>b</i> , oral aspect ; <i>c</i> , aboral aspect.		
„ 7.—	<i>Textularia jagosa</i> , n. sp.,	× 70	358
	<i>a</i> , Lateral aspect ; <i>b</i> , oral aspect.		
„ 8-12.—	<i>Textularia quadrilatera</i> , Schwager,	× 35	358
	Figs. 8 <i>a</i> , 9, 10. Lateral aspect ; figs. 8 <i>b</i> , 11, 12, peripheral aspect.		
„ 13, 14.—	<i>Textularia concava</i> , Karrer, sp.,	× 35	360
	<i>a, a</i> , Lateral aspect ; <i>b, b</i> , oral aspect ; <i>c</i> , peripheral aspect.		
„ 15, 16.—	<i>Textularia carinata</i> , d'Orbigny,	× 30	360
	Figs. 15, 16. Lateral aspect ; <i>b</i> , oral aspect.		
„ 17, 18.—	<i>Textularia sagittula</i> , DeFrance,	× 35	361
	Figs. 17, 18 <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect ; <i>c</i> , peripheral aspect.		
„ 19-22.—	<i>Textularia sagittula</i> , var. <i>pistulosa</i> , nov.,	× 25	362
	Figs. 19, 20. Lateral aspect ; figs. 21, 22, peripheral aspect.		
„ 23, 24.—	<i>Textularia rugosa</i> , Reuss, sp.,	× 25	363
	Figs. 23 <i>a</i> , 24. Lateral aspect ; 23 <i>b</i> , oral aspect.		
„ 25-29.—	<i>Textularia siphonifera</i> , Brady,	× 30	362
	Figs. 25-28. Lateral aspect ; <i>b</i> , oral aspect.		
	Fig. 29. Transverse section of the test.		



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TEXTULARIA

Textularia

PLATE XLIII.

PLATE XLIII.

TEXTULARIA.

			Diam.	Page
Figures 1-3.	— <i>Textularia agglutinans</i> , d'Orbigny,	×	25	363
	Figs. 1, 2. <i>a, a</i> , Lateral aspect ; <i>b, b</i> , oral aspect.			
	Fig. 3. Specimen with porous aperture, oral aspect.			
.. 4.	<i>Textularia agglutinans</i> , var. <i>porrecta</i> , nov.,	×	25	364
	<i>a</i> , Lateral aspect ; <i>b</i> , oral aspect.			
.. 5-8.	— <i>Textularia luculenta</i> , n. sp.,	×	20	364
	Fig. 5. Lateral aspect ; figs. 6, 7, oral aspect.			
	Fig. 8. Specimen laid open longitudinally, showing the change of the position of the aperture in the later segments.			
.. 9, 10.	— <i>Textularia gramen</i> , d'Orbigny,			365
	Fig. 9. <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect,	×	30	
	Fig. 10. <i>a</i> , Lateral aspect ; <i>c</i> , peripheral aspect,	×	18	
.. 11.	— <i>Textularia concava</i> , Karrer, sp.,	×	30	360
	<i>a</i> , Lateral aspect ; <i>c</i> , peripheral aspect.			
.. 12.	— <i>Textularia agglutinans</i> , deformed specimen, with traces of longitudinal costae,	×	25	364
.. 13, 14.	— <i>Textularia conica</i> , d'Orbigny,	×	40	365
	<i>a, a</i> , Lateral aspect ; <i>b</i> , oral aspect ; <i>c</i> , peripheral aspect ; <i>d</i> , aboral aspect.			
.. 15-19.	— <i>Textularia trochus</i> , d'Orbigny,			366
	Figs. 15 <i>a</i> , 16. Lateral aspect ; figs. 15 <i>d</i> , 18, aboral aspect,	×	40	
	Fig. 17. <i>a</i> , Lateral aspect ; figs. 17 <i>b</i> , 19, oral aspect,	×	25	

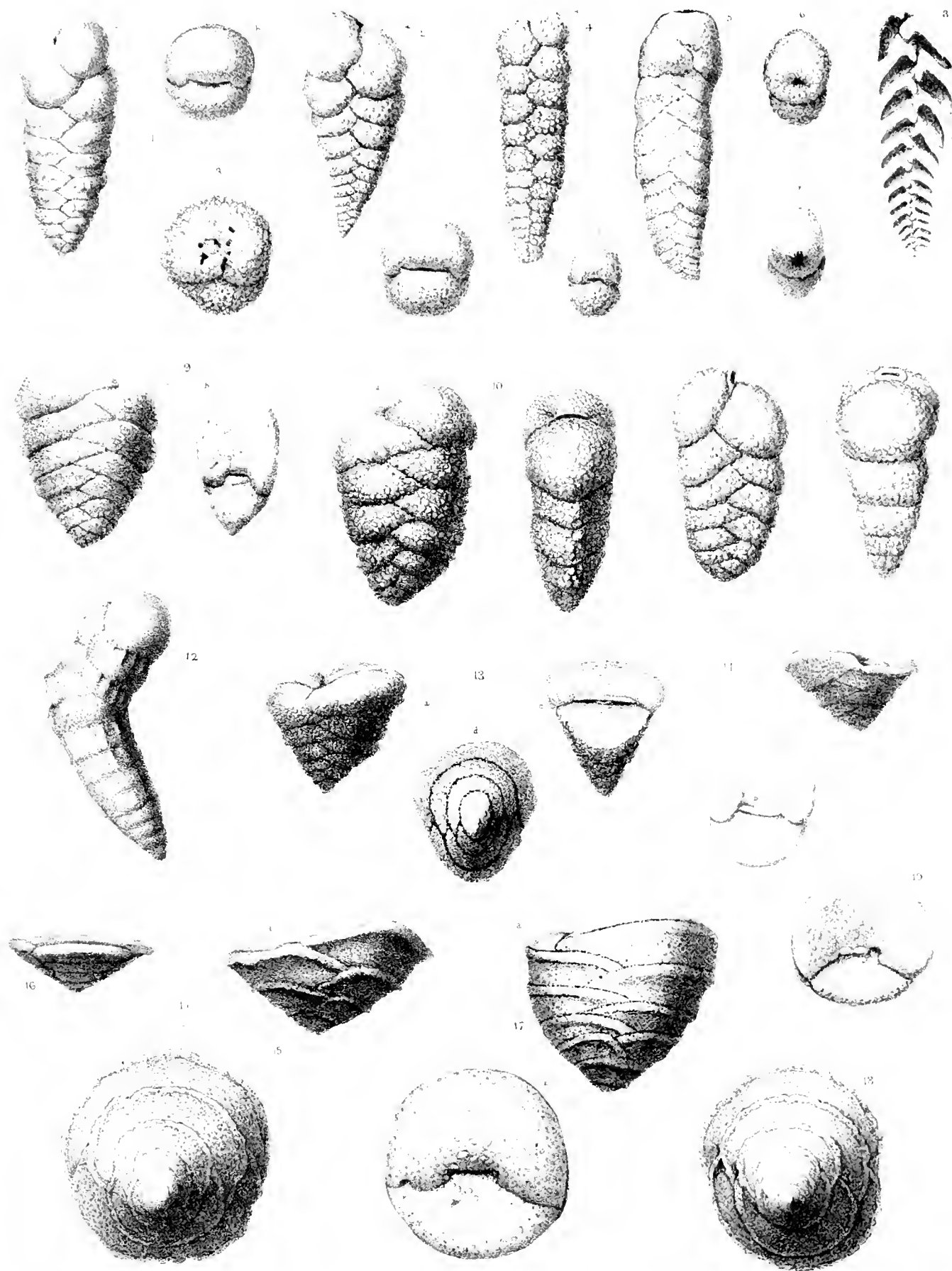


PLATE XLIV.

PLATE XLIV.

TEXTULARIA.—BIGENERINA.

		Diam.	Page
Figures 1-3.—	<i>Textularia trochas</i> , d'Orbigny, . . . . .	.	366
	Fig. 1. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect; fig. 2, peripheral aspect,	× 35	
	Fig. 3. Longitudinal section, showing the labyrinthic structure of the interior,	× 25	
„ 4, 5.—	<i>Textularia turris</i> , d'Orbigny, . . . . .	.	366
	Fig. 4. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect,	× 18	
	Fig. 5. Peripheral aspect,	× 15	
„ 6-8.—	<i>Textularia barrettii</i> , Jones and Parker, . . . . .	.	367
	Fig. 6. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect; <i>c</i> , peripheral aspect,	× 18	
	Fig. 7. Longitudinal section, showing the labyrinthic interior,	× 20	
	Fig. 8. Test fractured transversely,	× 30	
„ 9-13.—	<i>Textularia aspera</i> , Brady,	× 20-25	367
	Fig. 9. Specimens growing upon a fragment of <i>Rhabdammina</i> .		
	Figs. 10 <i>a</i> , 11, 12 <i>a</i> , 13. Lateral aspect; <i>b</i> , oral aspect.		
„ 14-18.—	<i>Bigenerina nodosaria</i> , d'Orbigny,	× 35	369
	Figs. 14, 15. Lateral aspect; figs. 16, 17, oral aspect.		
	Fig. 18. Longitudinal section of the test.		
„ 19-24.—	<i>Bigenerina digitata</i> , d'Orbigny, . . . . .	.	370
	Figs. 19, 20, 21. Lateral aspect; fig. 22, oral aspect,	× 35	
	Fig. 23. Section of the wall, showing the arenaceous structure,	× 60	
	Fig. 24. Longitudinal section of the test,	× 35	

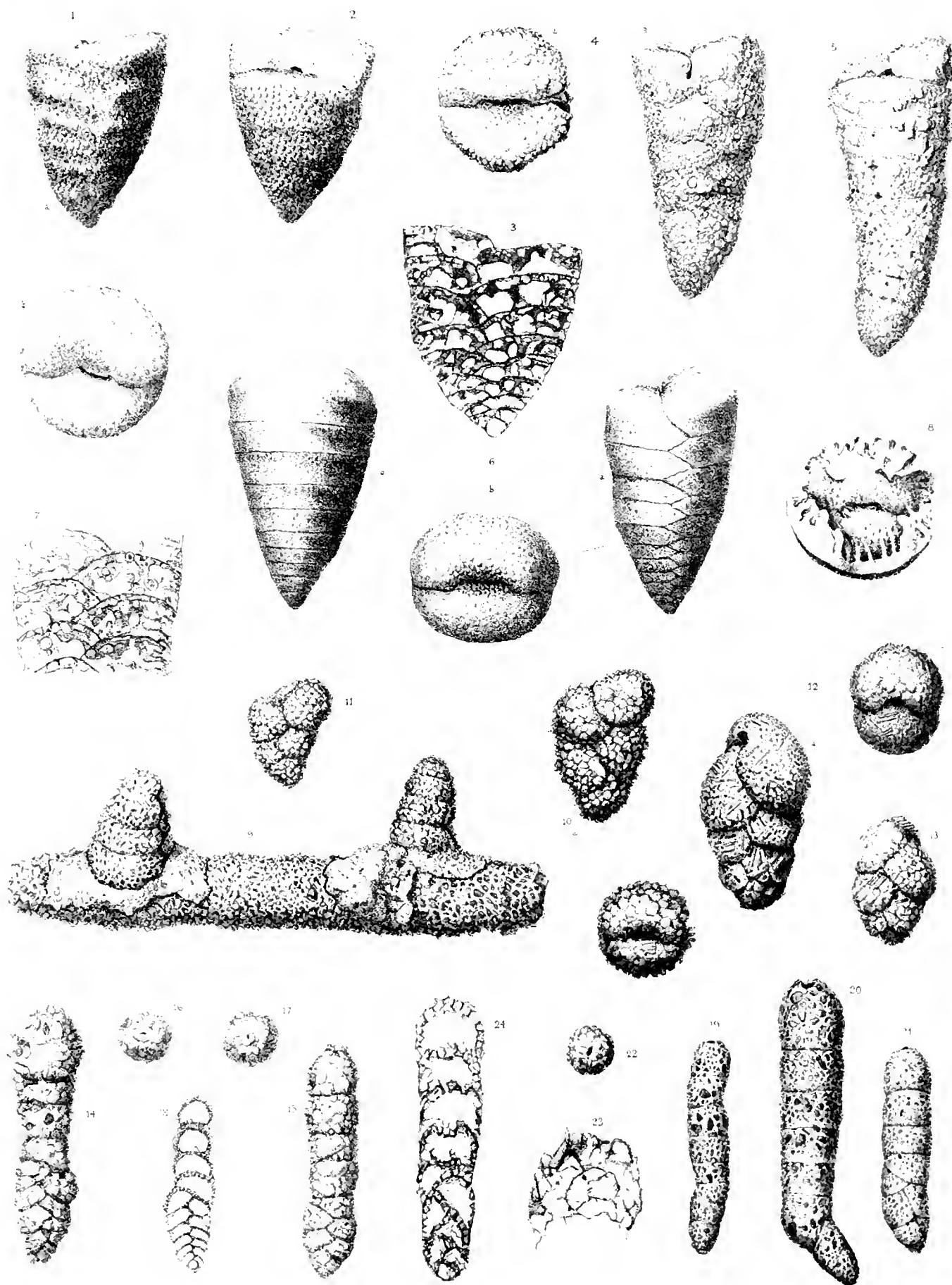


PLATE XLV.

PLATE XLV.

BIGENERINA.—PAVONINA.—SPIROPLECTA.

		Diam.	Page
Figures 1-4.—	<i>Bigenerina capreolus</i> , d'Orbigny, sp.	× 20	372
	Figs. 1 <i>a</i> , 2. Adult specimens, lateral aspect; 1 <i>b</i> , oral aspect.		
	Fig. 3. Young specimen, lateral aspect; fig. 4, oral aspect.		
.. 5-8.—	<i>Bigenerina pennatula</i> , Batsch, sp.	× 20	373
	Figs. 5, 6, 7. Lateral aspect; fig. 8, oral aspect.		
.. 9-16.—	<i>Bigenerina robusta</i> , Brady.	× 14	371
	Figs. 9, 10. Lateral aspect; figs. 11, 12, oral aspect.		
	Fig. 13. Specimen laid open longitudinally to show the interior.		
	Fig. 14. Test fractured transversely.		
	Figs. 15, 16. Monstrous specimens, showing different forms of aperture.		
.. 17-21.—	<i>Paronina flabelliformis</i> , d'Orbigny.		374
	Fig. 17. Lateral aspect,	× 50	
	Figs. 18, 19. Lateral aspect; figs. 20, 21, oral aspect,	× 60	
.. 22, 23.—	<i>Spiroplecta annectens</i> , Parker and Jones.	× 60	376
	Figs. 22, 23 <i>a</i> , Lateral aspect; <i>b</i> , oral aspect.		
.. 24.—	<i>Spiroplecta americana</i> , Ehrenberg.	× 60	376
	<i>a</i> , Lateral aspect; <i>b</i> , oral aspect.		
.. 25-27.—	<i>Spiroplecta bififormis</i> , Parker and Jones, sp.		376
	Fig. 25. Lateral aspect,	× 100	
	Figs. 26 <i>a</i> , 27. Lateral aspect; 26 <i>b</i> , oral aspect,	× 80	

PLATE XLVI.

PLATE XLVI.

GAUDRYINA.—CHRYSALIDINA.

		Diam.	Page
Figures 1-4.	<i>Gaudryina pupoides</i> , d'Orbigny,	× 30	378
	Figs. 1, 2 <i>a</i> , 4 <i>a</i> . Lateral aspect; fig. 2 <i>b</i> , oral aspect; figs. 3, 4 <i>b</i> . peripheral aspect.		
„ 5, 6.	<i>Gaudryina pupoides</i> , var. <i>chilostoma</i> , Reuss,		379
	Fig. 5. <i>a</i> , Lateral aspect; <i>b</i> , peripheral aspect,	× 25	
	Fig. 6. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect,	× 40	
„ 7.	<i>Gaudryina scabra</i> , n. sp.,	× 20	381
	<i>a</i> , Lateral aspect; <i>b</i> , peripheral aspect.		
„ 8-11.	<i>Gaudryina baccata</i> , Schwager,		379
	Figs. 8, 10. Lateral aspect; fig. 9, peripheral aspect,	× 20	
	Fig. 11. Portion of a specimen with the sutural depressions bridged over at intervals.	× 60	
„ 12.	<i>Gaudryina filiformis</i> , Berthelin,	× 50	380
	<i>a</i> , Lateral aspect; <i>b</i> , peripheral aspect; <i>c</i> , oral aspect.		
„ 13.	<i>Gaudryina subrotundata</i> , Schwager,	× 20	380
	<i>a</i> , Lateral aspect; <i>b</i> , peripheral aspect; <i>c</i> , oral aspect.		
„ 14-16.	<i>Gaudryina ragosa</i> , d'Orbigny,		381
	Fig. 14. Lateral aspect,	× 35	
	Fig. 15. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect.	× 20	
	Fig. 16. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect.	× 25	
„ 17-19.	<i>Gaudryina siphonella</i> , Reuss,	× 40	382
	Figs. 17 <i>a</i> , 18, 19. Lateral aspect; 17 <i>b</i> , oral aspect.		
„ 20, 21.	<i>Chrysalidina dimorpha</i> , Brady,	× 70	388
	Figs. 20, 21 <i>a</i> . Lateral aspect; <i>b</i> , oral aspect.		

PLATE XLVII.

PLATE XLVII.

VERNEULINA.

		Diam.	Page
Figures 1-3.—	<i>Verneulina spinulosa</i> , Reuss,	× 70	384
	Figs. 1 <i>a</i> , 2, 3. Lateral aspect; 1 <i>b</i> , oral aspect.		
„ 4-7.—	<i>Verneulina pygmaea</i> , Egger, sp.,		385
	Figs. 4, 6, Lateral aspect,	× 35	
	Fig. 5. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect,	× 25	
	Fig. 7. Section of the shell, showing its finely arenaceous structure,	× 120	
„ 8-14.—	<i>Verneulina propinqua</i> , n. sp.,		387
	Figs. 8, 9. Lateral aspect,	× 20	
	Fig. 10. Lateral aspect; fig. 11, oral aspect,	× 14	
	Fig. 12. Transverse section of the test,		
	Figs. 13, 14. Adherent specimens,	× 20	
„ 15-17.—	<i>Verneulina polystropha</i> , Reuss, sp.,	× 60	386
	Figs. 15, 16. Lateral aspect; fig. 17, oral aspect.		
„ 18-20.—	<i>Verneulina triquetra</i> , Münster, sp.,		383
	Fig. 18. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect,	× 14	
	Figs. 19, 20 <i>a</i> . Lateral aspect; <i>b</i> , oral aspect,	× 20	
„ 21-24.—	<i>Verneulina variabilis</i> , n. sp.,	× 14	385
	<i>a, a, a</i> . Lateral aspect of specimens of various forms; <i>b, b, b</i> , oral aspect of the same.		

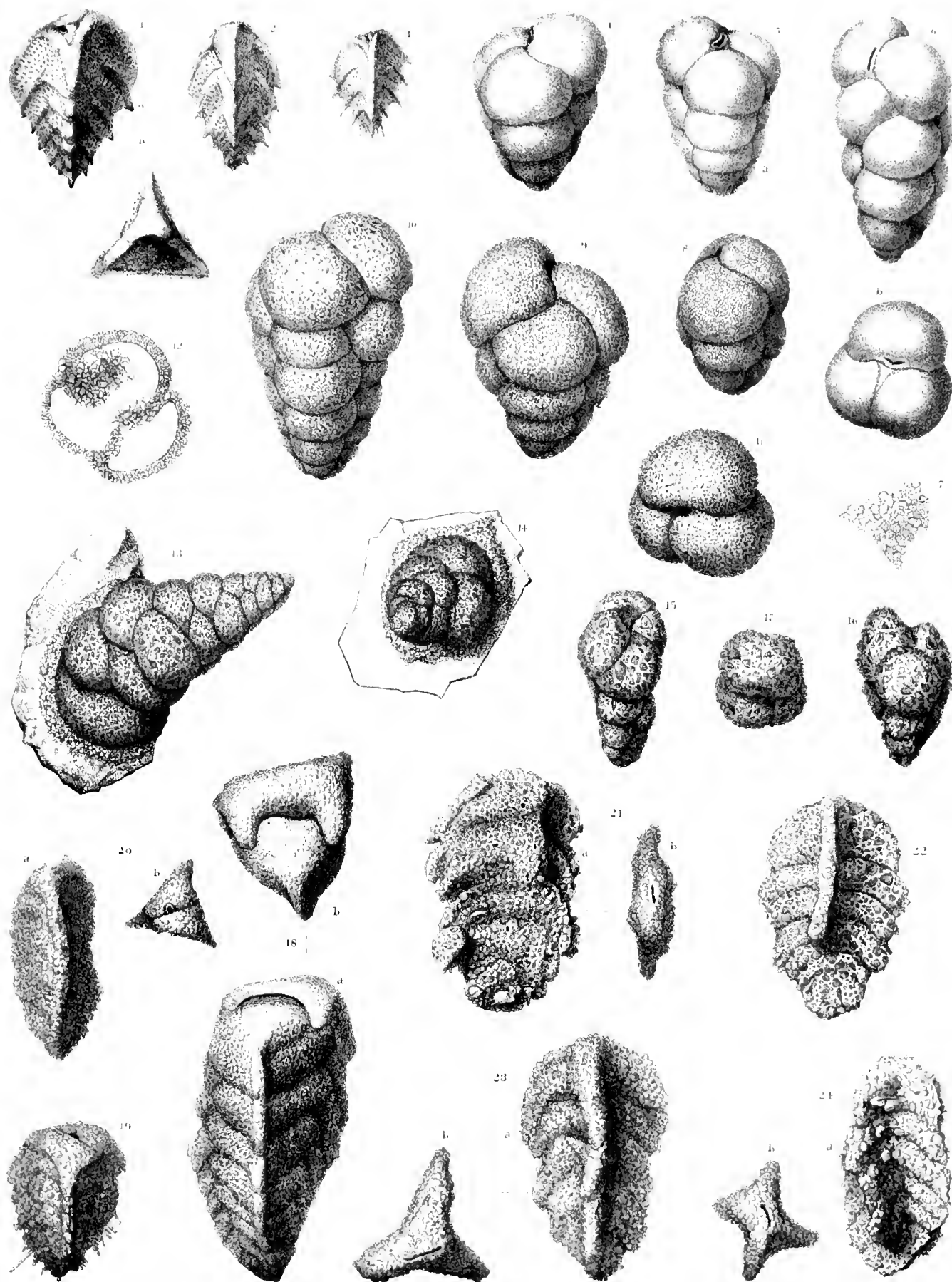


PLATE XLVIII.

PLATE XLVIII.

CLAVULINA.

		Diam.	Page
Figures 1-13.—	<i>Clavulina communis</i> , d'Orbigny.	.	394
	Figs. 1, 2. Lateral aspect; fig. 6, oral aspect.	× 25	
	Fig. 3. Lateral aspect.	× 30	
	Fig. 4. Arrested specimen.	× 30	
	Fig. 5. Monstrous specimen.	× 25	
	Figs. 7, 8. Longitudinal sections of the test.	× 30	
	Figs. 9, 10. Long specimens, lateral aspect; fig. 11, oral aspect.	× 15	
	Fig. 12. Similar specimen laid open to show the interior.	× 15	
	Fig. 13. Portion of a longitudinal section more highly magnified, showing the minute structure of the test.	× 100	
„ 14-18.—	<i>Clavulina parisiensis</i> , d'Orbigny.	.	395
	Figs. 14, 15. Lateral aspect; fig. 16, oral aspect.	× 18	
	Figs. 17, 18 <i>a</i> . Lateral aspect; <i>b</i> , oral aspect.	× 30	
„ 19-21.—	<i>Clavulina parisiensis</i> , var. <i>humilis</i> , nov..	× 40	395
	Figs. 19, 20, 21 <i>a</i> . Lateral aspect; <i>b</i> , oral aspect.		
„ 22-24.—	<i>Clavulina angularis</i> , d'Orbigny.	× 35	396
	Figs. 22, 23, 24 <i>a</i> . Lateral aspect; <i>b</i> , oral aspect.		
„ 25-31.—	<i>Clavulina angularis</i> , var. <i>difformis</i> , nov..	× 40	396
	Figs. 25-27. Lateral aspect; figs. 28-31, oral aspect.		
„ 32-38.—	<i>Clavulina cylindrica</i> , Hanken.	.	396
	Figs. 32-35. Lateral aspect; figs. 36, 37, oral aspect.	× 20	
	Fig. 38. Longitudinal section, showing the minute structure of the test and the arrangement of the chambers.	× 15	

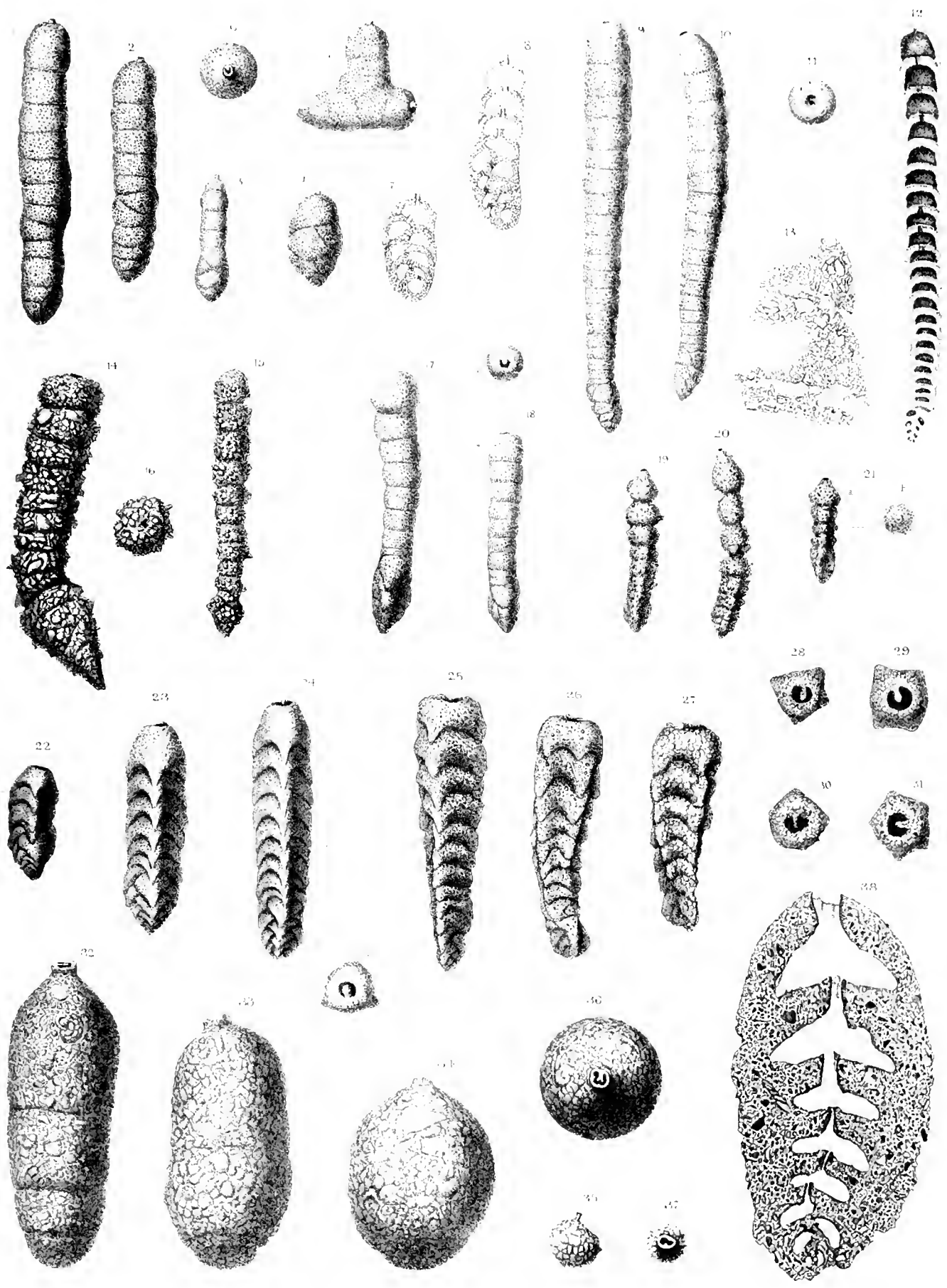


PLATE XLIX.

PLATE XLIX.

TRITAXIA. — VALVULINA.

		Diam.	Page
Figures 1-7.—	<i>Tritaxia caperata</i> , Brady,	.	390
	Figs. 1 <i>a</i> , 2. Adult specimens, lateral aspect ; 1 <i>b</i> , oral aspect,	×	16
	Fig. 3 <i>a</i> , Young specimen, lateral aspect ; <i>b</i> , oral aspect,	×	16
	Fig. 4. Specimen laid open longitudinally ; fig. 5, specimen broken transversely ;—showing the labyrinthic interior,	×	16
	Fig. 6. Longitudinal section of the test,	×	30
	Fig. 7. Portion of the outer wall of the same more highly magnified, showing the pore-canals,	×	120
„ 8, 9.—	<i>Tritaxia tricarinata</i> , Reuss,	×	35
	Figs. 8 <i>a</i> , 9. Lateral aspect ; <i>b</i> , oral aspect.		389
„ 10, 11.—	<i>Tritaxia indiscreta</i> , Brady,	×	25
	Figs. 10 <i>a</i> , 11. Lateral aspect ; 10 <i>b</i> , oral aspect.		389
„ 12.—	<i>Tritaxia lepida</i> , Brady,	×	80
	<i>a</i> , Lateral aspect ; <i>b</i> , oral aspect.		389
„ 13, 14.—	<i>Valvulina fusca</i> , Williamson sp.,	.	392
	Fig. 13. <i>a</i> , Superior aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect,	×	50
	Fig. 14. Adherent specimen,	×	40
„ 15, 16.—	<i>Valvulina conica</i> , Parker and Jones,	.	392
	Fig. 15. <i>a</i> , Superior aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect,	×	50
	Fig. 16. Colony of specimens adherent to the test of <i>Saccammina sphaerica</i> ,	×	40

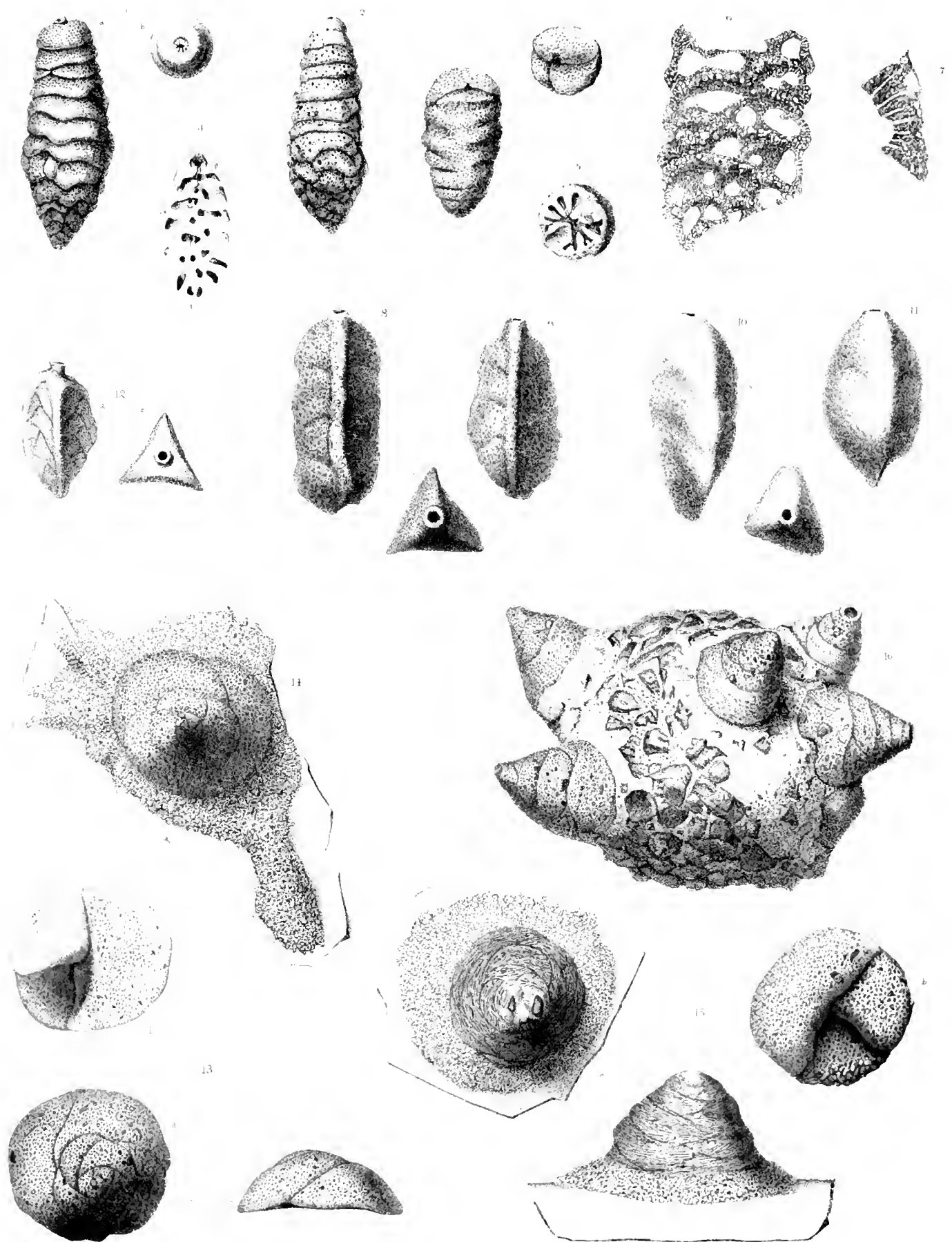


PLATE L.

PLATE L.

BULIMINA.

				Diam.	Page
Figures 1-4.—	<i>Bulimina elegans</i> , d'Orbigny,	.	.	.	398
	Fig. 1. <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect,	.	.	×	60
	Figs. 2-4. Lateral aspects,	.	.	×	50
„ 5, 6.—	<i>Bulimina elegans</i> , var. <i>exilis</i> , nov.,	.	.	×	60
	Figs. 5 <i>a</i> , 6. Lateral aspect ; <i>b</i> , oral aspect.				399
„ 7-10.—	<i>Bulimina pyrula</i> , d'Orbigny,	.	.	.	399
	Figs. 7 <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect,	.	.	×	40
	Figs. 8, 9, 10. Lateral aspect,	.	.	×	50
„ 11, 12.—	<i>Bulimina pyrula</i> , var. <i>spinescens</i> , nov.,	.	.	×	60
	Lateral aspects.				400
„ 13.—	<i>Bulimina ovata</i> , d'Orbigny,	.	.	×	50
	Lateral aspects.				400
„ 14.—	<i>Bulimina affinis</i> , d'Orbigny,	.	.	×	50
	Lateral aspects.				400
„ 15.—	<i>Bulimina pupoides</i> , d'Orbigny,	.	.	×	45
	Lateral aspects.				400
„ 16.—	<i>Bulimina subcylindrica</i> , Brady,	.	.	×	80
	Lateral aspects.				404
„ 17, 18. —	<i>Bulimina subteres</i> , Brady,	.	.	.	403
	Lateral aspects ; fig. 17, × 60 ;—fig. 18,	.	.	×	80
„ 19.—	<i>Bulimina declivis</i> , Reuss,	.	.	×	70
	Lateral aspects.				404
„ 20-22.—	<i>Bulimina elegantissima</i> , d'Orbigny,	.	.	×	80
	Lateral aspects.				402
„ 23, 24.—	<i>Bulimina elegantissima</i> , var. <i>seminuda</i> , Terquem,	.	.	×	80
	Lateral aspects.				403

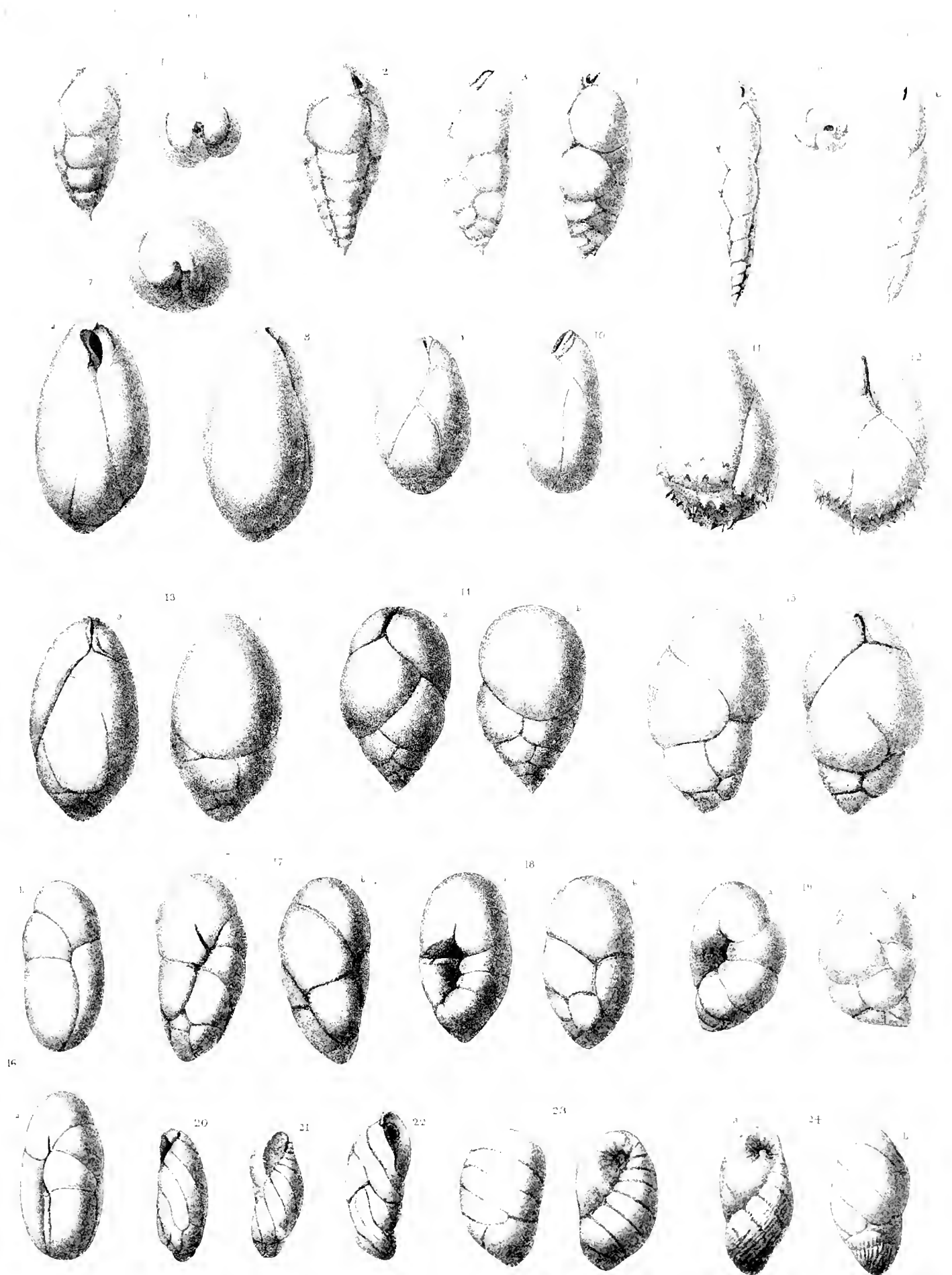


PLATE LI.

PLATE II.

BULIMINA.—PLEUROSOMELLA.

			Diam.	Page
Figure	1.— <i>Bulimina elongata</i> , d'Orbigny,	×	70	401
„	2.—Intermediate specimen, with characters approaching those of <i>Bulimina orata</i> ,	×	80	401
„	3-5.— <i>Bulimina marginata</i> , d'Orbigny, Figs. 3, 4, 5. Lateral aspect ; <i>c</i> , oral aspect.	×	80	405
„	6.— <i>Bulimina subornata</i> , Brady, Lateral aspects.	×	80	402
„	7-9.— <i>Bulimina aculeata</i> , d'Orbigny, Figs. 7, 8, 9. Lateral aspects ; <i>c</i> , oral aspect.	×	60	406
„	10-13.— <i>Bulimina inflata</i> , Seguenza, Figs. 10, 11, 12, 13. Lateral aspects ; <i>c</i> , oral aspect.	×	60	406
„	14, 15.— <i>Bulimina rostrata</i> , n. sp., Figs. 14, 15. Lateral aspects ; <i>c</i> , oral aspect.	×	80	408
„	16, 17.— <i>Bulimina williamsoniana</i> , Brady, Figs. 16 <i>a</i> , <i>b</i> , 17. Lateral aspects ; <i>c</i> , oral aspect.	×	80	408
„	18, 19.— <i>Bulimina buchiana</i> , d'Orbigny, Figs. 18, 19. Lateral aspects ; <i>c</i> , oral aspect.	×	80	407
„	20.— <i>Pleurostomella brevis</i> , Schwager, <i>a</i> , Peripheral aspect ; <i>b</i> , lateral aspect.	×	40	411
„	21.— <i>Pleurostomella rapa</i> , Gümbel, <i>a</i> , Peripheral aspect ; <i>b</i> , lateral aspect.	×	60	411
„	22, 23.— <i>Pleurostomella alternans</i> , Schwager,			412
	Fig. 22. <i>a</i> , Peripheral aspect ; <i>b</i> , lateral aspect.	×	70	
	Fig. 23. <i>a</i> , Peripheral aspect ; <i>b</i> , lateral aspect.	×	60	



PLATE LII.

PLATE LII.

VIRGULINA.—PLEUROSATOMELLA.—BOLIVINA.

			Diam.	Page
Figures 1-3.—	<i>Virgulina schreibersiana</i> , Czjzek,	×	70	414
	Figs. 1, 2, 3. Lateral aspects; <i>c</i> , oral aspect.			
„ 4, 5.—	<i>Virgulina pauciloculata</i> , n. sp.,	×	80	414
	<i>a</i> , <i>b</i> , Lateral aspects; <i>c</i> , oral aspect.			
„ 6.—	<i>Virgulina texturata</i> , n. sp.,	×	40	415
	<i>a</i> , Lateral aspect; <i>b</i> , peripheral aspect.			
„ 7-11.—	<i>Virgulina subsquamosa</i> , Egger,			415
	Figs. 7-9. Various lateral aspects; <i>c</i> , oral aspect,	×	50	
	Figs. 10, 11. Various lateral aspects,	×	70	
„ 12, 13.—	<i>Pleurostomella subnodosa</i> , Reuss,	×	50	412
	Figs. 12, 13. Lateral aspects; <i>c</i> , oral aspect.			
„ 14-17.—	<i>Virgulina subdepressa</i> , n. sp.,	×	40	416
	Various lateral aspects.			
„ 18, 19.—	<i>Bolivina punctata</i> , d'Orbigny,	×	60	417
	Figs. 18, 19. Lateral aspect; <i>c</i> , oral aspect.			
„ 20, 21.—	<i>Bolivina dilatata</i> , Reuss,	×	70	418
	Figs. 20, 21. Lateral aspect; <i>c</i> , oral aspect.			
„ 22.—	<i>Bolivina porrecta</i> , Brady,	×	50	418
	<i>a</i> , <i>b</i> , Lateral aspects; <i>c</i> , oral aspect.			
„ 23-25.—	<i>Bolivina textilarioides</i> , Reuss,	×	70	419
	Figs. 23, 24, 25. Lateral aspects; <i>c</i> , oral aspect.			
„ 26-28.—	<i>Bolivina limbata</i> , Brady,	×	50	419
	Figs. 26, 27, 28. Lateral aspects; <i>c</i> , oral aspect.			
„ 29.—	<i>Bolivina tenuis</i> , Brady,	×	80	419
	Fig. 29. Lateral aspect; <i>c</i> , oral aspect.			
„ 30.—	<i>Bolivina nitida</i> , n. sp.,	×	80	420
	Lateral aspects.			
„ 31-34.—	<i>Bolivina tortuosa</i> , Brady,	×	70	420
	Figs. 31, 32, 33, 34. Lateral aspects; <i>c</i> , <i>c</i> , oral aspect.			



PLATE LIII.

PLATE LIII.

BOLIVINA.

Figure				Diam.	Page
1.	— <i>Bolivina beyrichi</i> , Reuss,	.	.	× 50	422
	Lateral aspect.				
2-4.	— <i>Bolivina beyrichi</i> , var. <i>alata</i> , Seguenza,	.	.	.	422
	Fig. 2. Lateral aspect,	.	.	× 50	
	Figs. 3, 4. Lateral aspect ; <i>b</i> , oral aspect,	.	.	× 60	
5, 6.	— <i>Bolivina pygmaea</i> , Brady,	.	.	× 60	421
	Figs. 5, 6. Lateral aspect ; <i>b</i> , oral aspect.				
7-9.	— <i>Bolivina robusta</i> , Brady,	.	.	× 60	421
	Figs. 7, 8, 9. Lateral aspects ; <i>b</i> , oral aspect.				
10, 11.	— <i>Bolivina anariensis</i> , Costa, sp.,	.	.	× 50	423
	Figs. 10, 11. Lateral aspect ; <i>b</i> , oral aspect.				
12, 13.	— <i>Bolivina decussata</i> , Brady,	.	.	× 60	423
	Figs. 12, 13. Lateral aspect ; <i>b</i> , oral aspect.				
14, 15.	— <i>Bolivina nobilis</i> , Hantken,	.	.	× 60	424
	Figs. 14, 15. Lateral aspect ; <i>b</i> , oral aspect.				
16-18.	— <i>Bolivina hantkeniana</i> , Brady,	.	.	.	424
	Figs. 16, 17. Lateral aspect ; <i>b</i> , oral aspect,	.	.	× 40	
	Fig. 18. Lateral aspect,	.	.	× 60	
19-21.	— <i>Bolivina karrieriana</i> , Brady,	.	.	× 60	424
	Figs. 19, 20, 21. Lateral aspects ; <i>b</i> , oral aspect.				
22, 23.	— <i>Bolivina lobata</i> , Brady,	.	.	× 80	425
	Figs. 22, 23. Lateral aspect ; <i>b</i> , oral aspect.				
24, 25.	— <i>Bolivina schwageriana</i> , Brady,	.	.	× 50	425
	Figs. 24, 25. Lateral aspect ; <i>b</i> , oral aspect.				
26, 27.	— <i>Bolivina costata</i> , d'Orbigny,	.	.	× 60	426
	Figs. 26, 27. Lateral aspect ; <i>b</i> , oral aspect.				
28, 29.	— <i>Bolivina amygdaliformis</i> , Brady,	.	.	× 50	426
	Figs. 28, 29. Lateral aspect ; <i>b</i> , oral aspect.				
30, 31.	— <i>Bolivina reticulata</i> , Hantken,	.	.	× 70	426
	Figs. 30, 31. Lateral aspect ; <i>b</i> , oral aspect.				
32, 33.	— <i>Bolivina subangularis</i> , Brady,	.	.	× 60	427
	Figs. 32, 33. Lateral aspect ; <i>b</i> , oral aspect.				

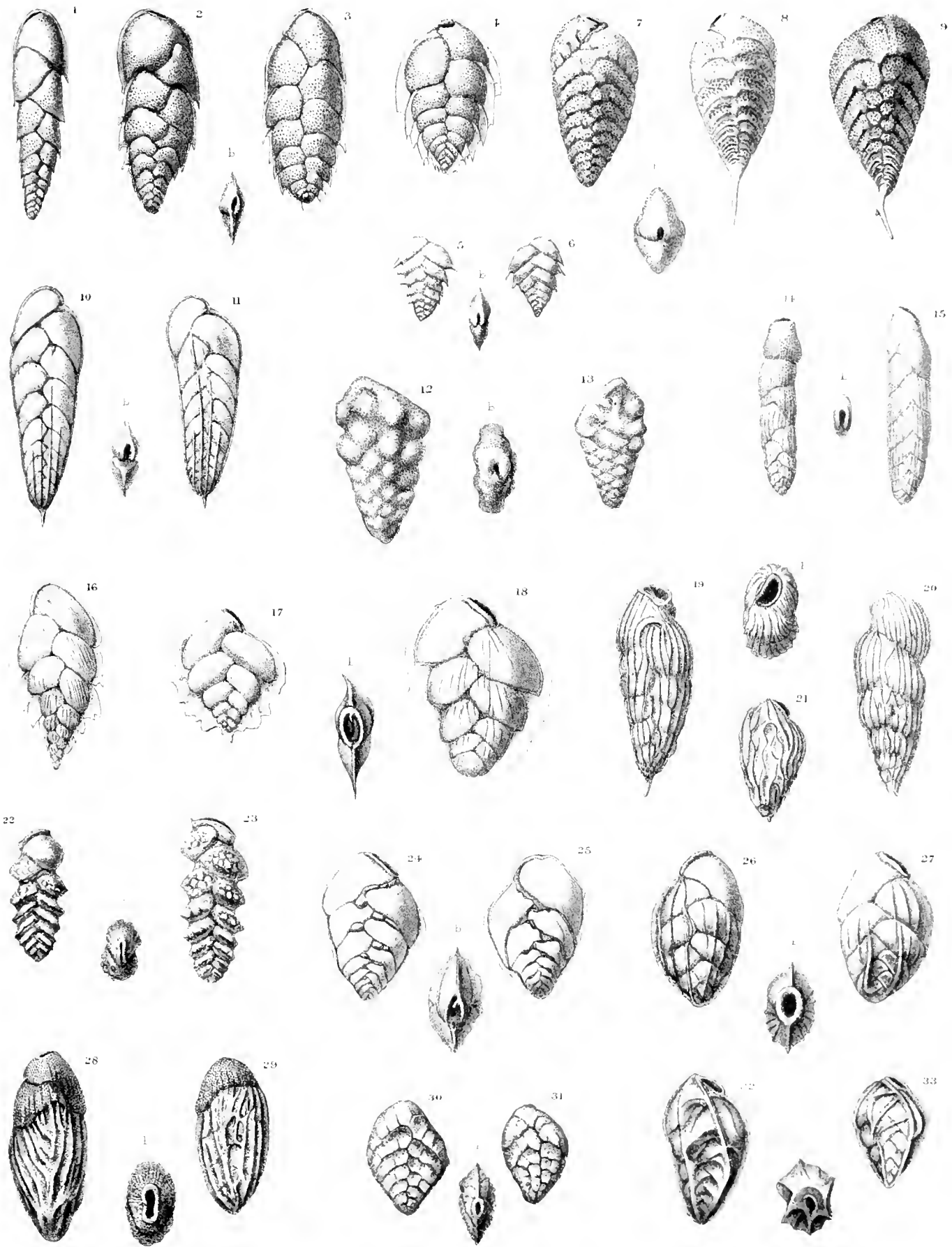




PLATE LIV.

PLATE LIV.

CASSIDULINA.—BULIMINA.

		Diam.	Page
Figures 1-3.—	<i>Cassidulina laevigata</i> , d'Orbigny,	× 75	428
	Fig. 1. <i>a</i> , Superior lateral aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
	Fig. 2. Specimen with carinate margin.		
	Fig. 3. Specimen with serrate keel.		
„ 4, 5.—	<i>Cassidulina crassa</i> , d'Orbigny,		429
	Fig. 4. <i>a</i> , Superior lateral aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect,	× 60	
	Fig. 5. <i>a</i> , Superior lateral aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect,	× 75	
„ 6-10.—	<i>Cassidulina bradyi</i> , Norman,	× 75	431
	Fig. 10. <i>a</i> , Superior lateral aspect; figs. 6, 7, 10 <i>b</i> , inferior aspect; fig. 8, peripheral aspect; fig. 9, oral aspect.		
„ 11-16.—	<i>Cassidulina parkeriana</i> , Brady,	× 75	432
	Figs. 11-14. Lateral aspects; figs. 15, 16, oral aspects.		
„ 17.—	<i>Cassidulina subglobosa</i> , Brady,	× 60	430
	<i>a</i> , Lateral aspect; <i>b, c</i> , ventral and dorsal peripheral aspects.		
„ 18.—	<i>Bulimina contraria</i> , Reuss, sp.,	× 60	409
	<i>a</i> , Superior lateral aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		

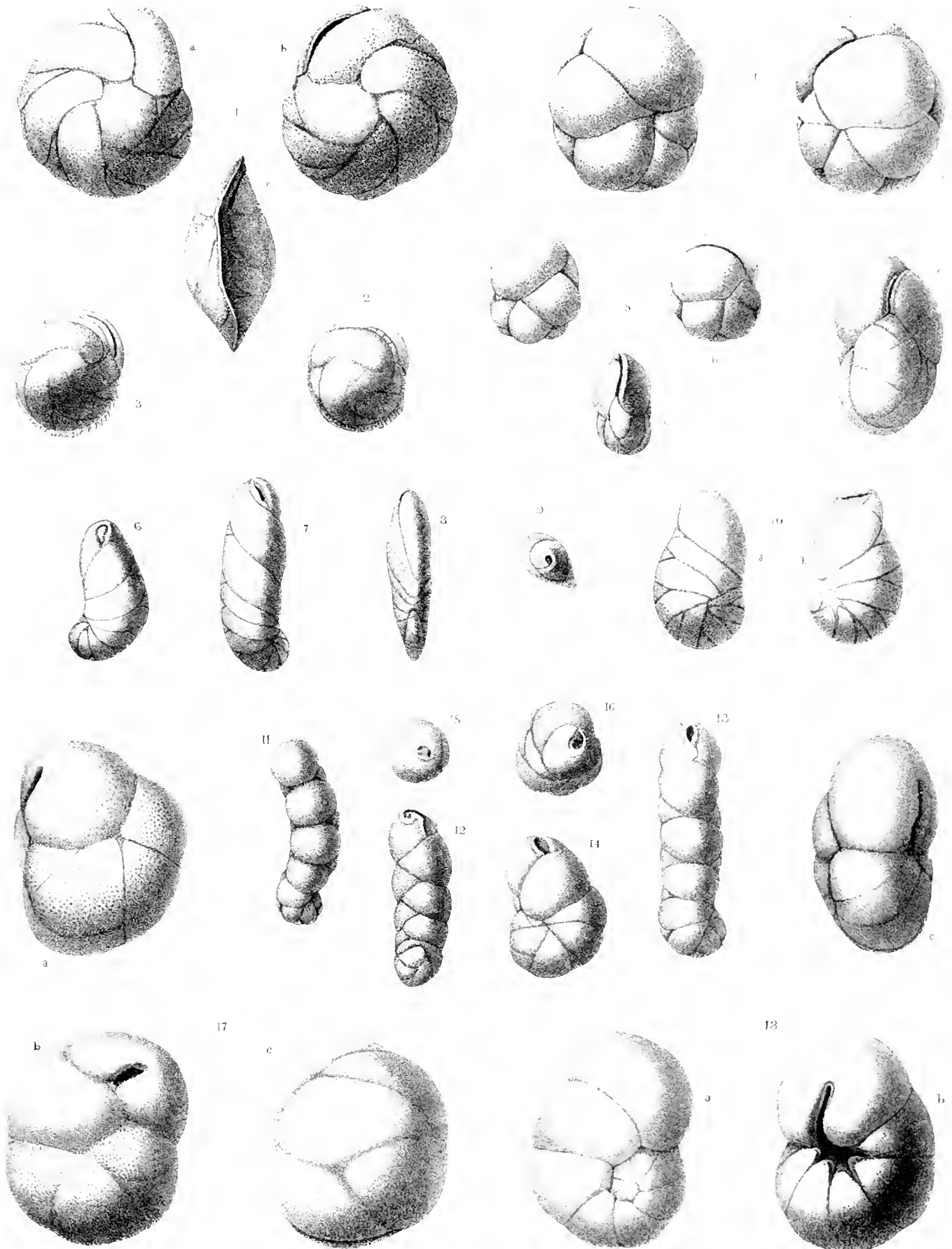


PLATE LV.

PLATE LV.

EHRENBERGINA.—CHILOSTOMELLA.—ALLOMORPHINA.

		Diam.	Page
Figure 1.—	<i>Ehrenbergina pupa</i> , d'Orbigny, sp., .	× 75	433
	<i>a</i> , Ventral lateral aspect ; <i>b</i> , dorsal aspect.		
„ 2-7.—	<i>Ehrenbergina serrata</i> , Reuss,		434
	Figs. 2 <i>a</i> , 6. Ventral lateral aspects ; figs. 2 <i>b</i> , 7, dorsal aspects, .	× 60	
	Fig. 3. Ventral aspect ; figs. 4, 5, oral aspects,	× 75	
„ 8-11.—	<i>Ehrenbergina hystrix</i> , Brady,	× 60	434
	Figs. 8, 9. Ventral aspect ; figs. 10, 11, dorsal aspect.		
„ 12-23.—	<i>Chilostomella ovoidea</i> , Reuss,		436
	Figs. 12-18. Lateral aspects ; figs. 19, 20, oral aspects,	× 50	
	Figs. 21, 22. Small specimens mounted in Canada balsam and viewed by transmitted light, showing the arrangement of the chambers,	× 70	
	Fig. 23. Specimen with part of the wall of the final segment removed,	× 50	
„ 24-26.—	<i>Allomorphina trigonula</i> , Reuss,		438
	Figs. 24, 25. Lateral aspects,	× 60	
	Fig. 26. Specimen mounted in Canada balsam and viewed by transmitted light, showing the arrangement of the chambers,	× 100	

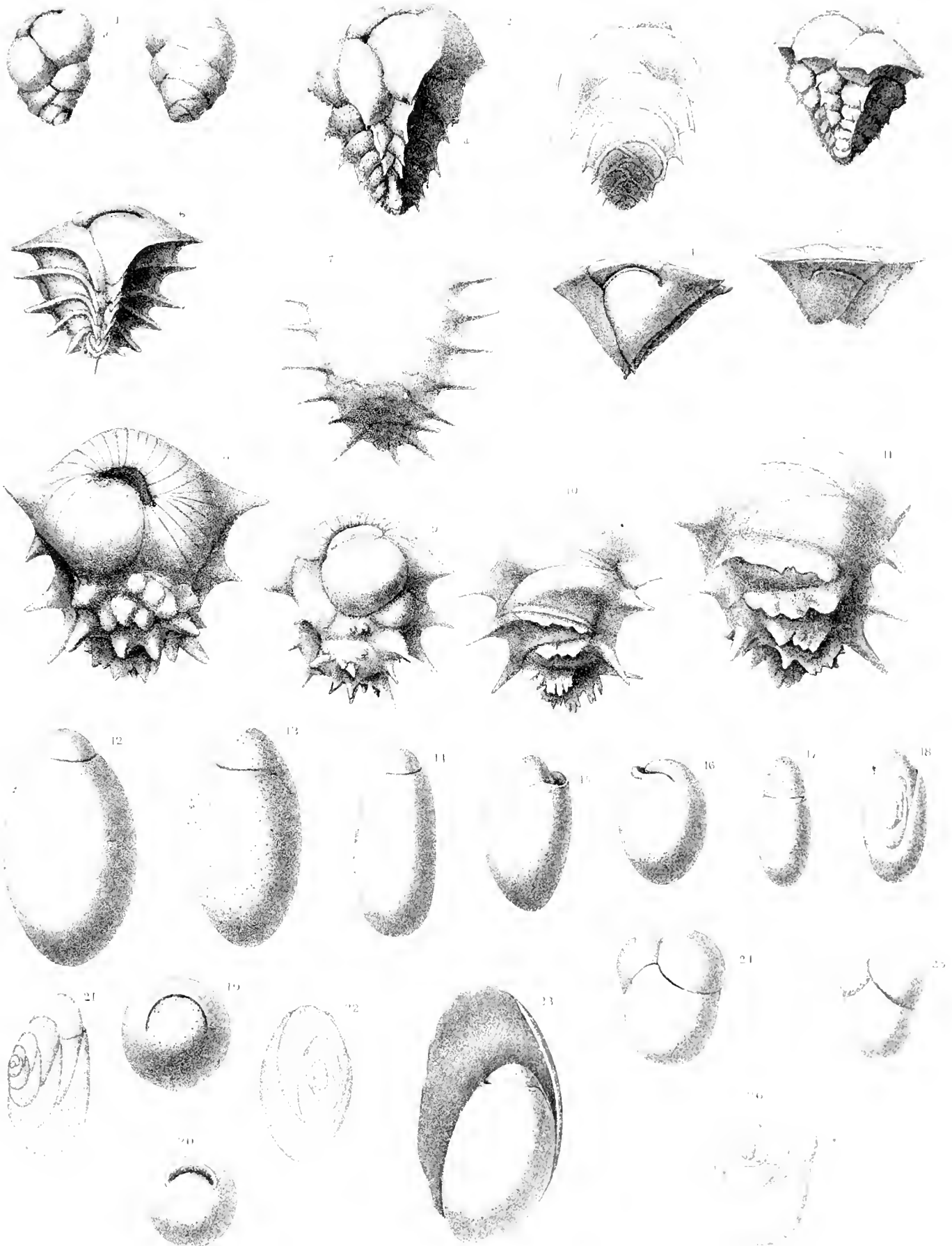


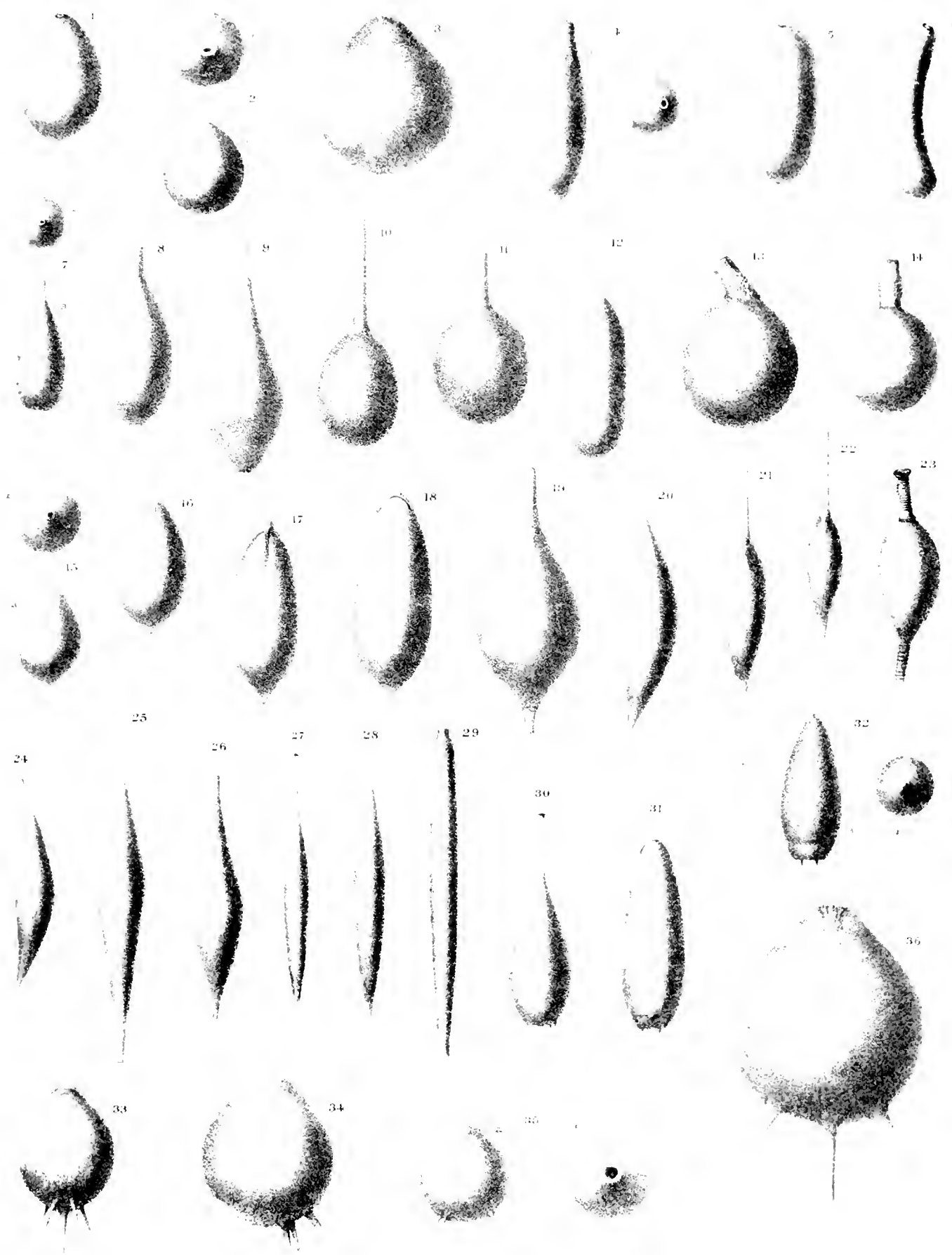
PLATE LVI.

PLATE LVI.

LAGENA.

(*a*, Lateral aspect ; *b*, oral aspect.)

					Diam.	Page
Figures	1-3.	— <i>Lagena globosa</i> , Montagu, sp.,	.	.	×	60-75 452
„	4.	— <i>Lagena apiculata</i> , Reuss, sp.,	.	.	×	75 453
„	5.	— <i>Lagena orum</i> , Ehrenberg, sp.,	.	.	×	75 454
„	6.	— <i>Lagena botelliformis</i> , Brady,	.	.	×	75 454
„	7-14.	— <i>Lagena lavis</i> , Montagu, sp.,	.	.	×	75 455
„	15-18.	— <i>Lagena apiculata</i> , Reuss, sp.,	.	.	×	75 453
„	19-28.	— <i>Lagena gracillima</i> , Seguenza, sp.,	.	.	×	60 456
„	29.	— <i>Lagena elongata</i> , Ehrenberg, sp.,	.	.	×	60 457
„	30.	— <i>Lagena lavis</i> , Montagu, sp. (var.),	.	.	×	75 455
„	31, 32.	— <i>Lagena truncata</i> , n. sp.,	.	.	×	75 457
„	33-36.	— <i>Lagena longispina</i> , Brady, globular form.	.	.	.	454
		Figs. 33-35. × 75 ;—fig. 36,	.	.	×	50



At Hellick ad nat. sel. et. linc.

LAGENA

PLATE LVII.

PLATE LVII.

LAGENA.

(*a*, Lateral aspect; *b*, oral aspect.)

				Diam.	Page	
Figures 1-4.—	<i>Lagena hispida</i> , Reuss,	.	.	×	60	459
„ 5.—	<i>Lagena ampulla-distoma</i> , Rymer Jones,	.	.	×	60	458
„ 6 (?) 7-12.—	<i>Lagena aspera</i> , Reuss,	.	.	.	.	457
	Figs. 6, 7. × 75; figs. 8, 9,	.	.	×	60	
	Figs. 10, 11,	.	.	×	45	
	Fig. 12. Compressed ecto-ento-solenian specimen,	.	.	×	60	
„ 13.—	<i>Lagena lineata</i> , Williamson, sp.,	.	.	×	60	461
„ 14, 16, 17, (and 18 ?).—	<i>Lagena semistriata</i> , Williamson,	.	.	×	75	465
„ 15, 21.—	<i>Lagena crenata</i> , Parker and Jones,	.	.	×	75	467
„ 20.—	Intermediate form, resembling <i>Lagena crenata</i> and <i>Lagena semistriata</i> ,	.	.	×	75	465
„ 19, 22, 24, 28, 29, 30.—	<i>Lagena striata</i> , d'Orbigny, sp.,	.	.	×	60	460
„ 23, 26, 33, 34.—	<i>Lagena sulcata</i> , Walker and Jacob,	.	.	×	60	462
„ 25, 27.—	<i>Lagena sulcata</i> , var. <i>interrupta</i> , Williamson,	.	.	×	60	463
„ 31, 32.—	<i>Lagena acuticosta</i> , Reuss,	.	.	×	60-75	464
„ 35, 36.—	<i>Lagena stelligera</i> , Brady,	.	.	×	75	466

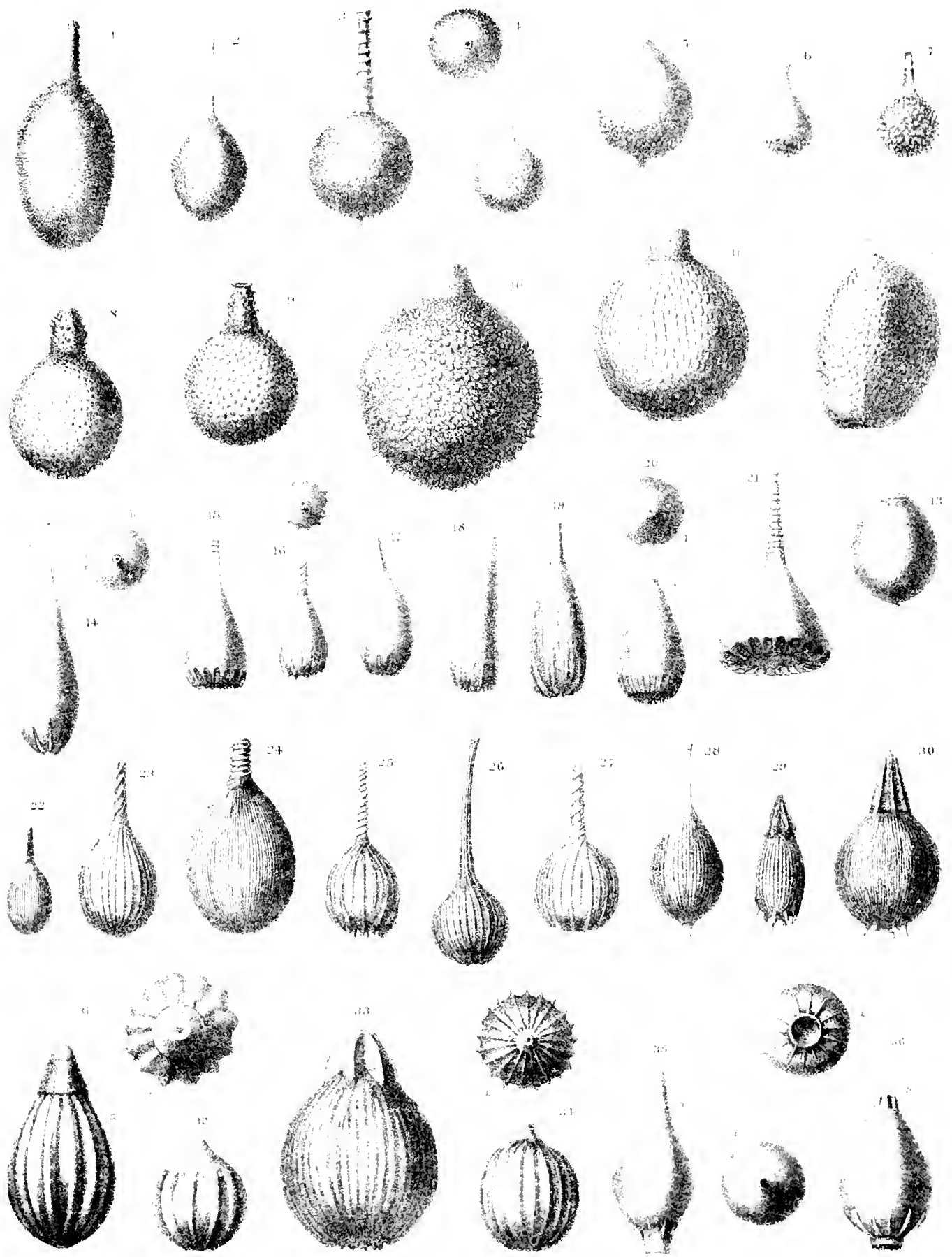


PLATE LVIII.

PLATE LVIII.

LAGENA.

(*a*, Lateral aspect ; *b*, oral aspect.)

		Diam.	Page
Figure 1.—	<i>Lagena exsculpta</i> , Brady,	× 75	467
„ 2, 3, 7–10.—	<i>Lagena gracilis</i> , Williamson,	× 75	464
„ 4, 17 (?), 18.—	Apiculate forms of <i>Lagena sulcata</i> , Walker and Jacob,	× 75	462
„ 5, 6.—	Apiculate form of <i>Lagena sulcata</i> , var. <i>interrupta</i> , Williamson,	× 75	463
„ 11–15.—	<i>Lagena distoma</i> , Parker and Jones,	× 45–60	461
„ 16.—	<i>Lagena distoma-margaritigera</i> , Parker and Jones,	× 40	458
„ 19, 22–24.—	<i>Lagena gracilis</i> , Williamson,	× 75	464
„ 20 (?), 21.—	<i>Lagena acuticosta</i> , Reuss,	× 75	464
„ 25, 26 (?), 27.—	<i>Lagena plumigera</i> , Brady,	× 75	465
„ 28–31.—	<i>Lagena squamosa</i> , Montagu, sp.,	× 75	471
„ 32, 33.—	<i>Lagena herayona</i> , Williamson, sp.,	× 75	472
„ 34.—	<i>Lagena seminuda</i> , n. sp.,	× 60	472
„ 35.—	<i>Lagena favoso-punctata</i> , Brady,	× 75	473
„ 36.—	<i>Lagena hertwigiana</i> , Brady,	× 75	470
„ 37, 40.—	<i>Lagena striatopunctata</i> , Parker and Jones,	× 75	468
„ 38, 39.—	<i>Lagena feildeniiana</i> , Brady,	× 75	469
„ 41.—	<i>Lagena torquata</i> , Brady,	× 75	469
„ 42, 43.—	<i>Lagena desmophora</i> , Rymer Jones,	× 75	468

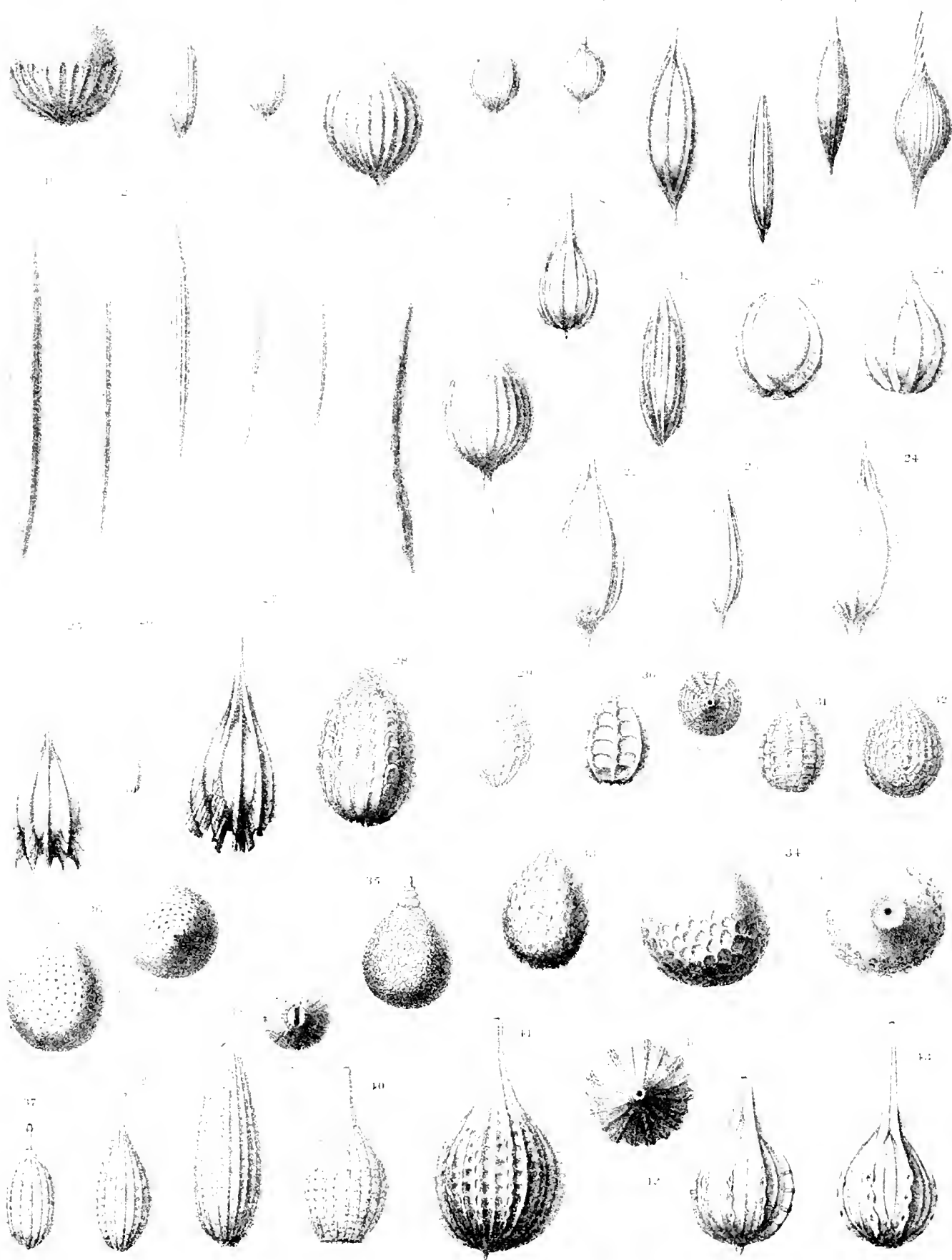


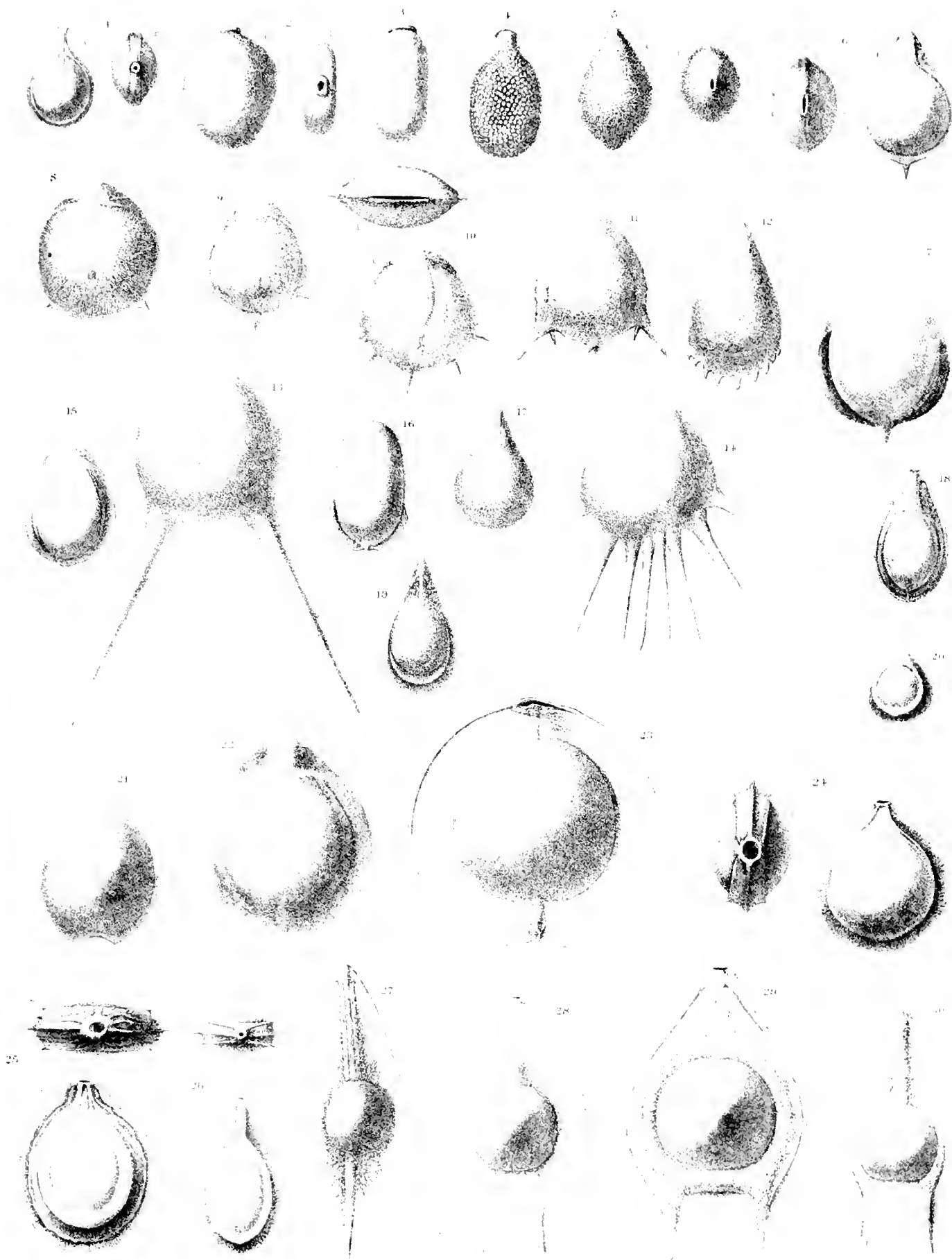
PLATE LIX.

PLATE LIX.

LAGENA.

(*a*, Lateral aspect ; *b*, oral aspect.)

Figure			Diam.	Page
1.	— <i>Lagena orbignyana</i> , Seguenza, sp., . . .	×	75	484
„ 2, 5.	— <i>Lagena hispida</i> , Reuss, compressed variety, Much worn specimens.	×	75	459
„ 3.	— <i>Lagena quadrata</i> , Williamson, sp., . . .	×	75	475
„ 4.	— <i>Lagena favoso-punctata</i> , Brady ; compressed form	×	75	473
„ 6.	— <i>Lagena acuta</i> , Reuss, sp. (not typical), . . .	×	60	474
„ 7.	— <i>Lagena quadricostulata</i> , Reuss (?), . . .	×	60	486
„ 8-11.	— <i>Lagena staphylleurea</i> , Schwager, sp. Fig. 8. × 45 diameters ; figs. 9-11, . . .	×	75	474
„ 12.	— <i>Lagena unguiculata</i> , Brady, . . .	×	60	474
„ 13, 14.	— <i>Lagena longispina</i> , Brady ; compressed variety, . Fig. 13. The spines of this specimen are hollow.	×	30	454
„ 15.	— <i>Lagena quadricostulata</i> , Reuss, . . .	×	75	486
„ 16.	— <i>Lagena quadrata</i> , Williamson sp., . . . Partially carinate specimen.	×	75	475
„ 17, 19.	— <i>Lagena marginata</i> , var. <i>semimarginata</i> , Reuss, .	×	60-75	477
„ 18, 20.	— <i>Lagena orbignyana</i> , Seguenza, sp., varieties, .	×	75-90	484
„ 21-23.	— <i>Lagena marginata</i> , Walker and Boys. Fig. 21. × 45 ; fig. 22, × 40 ; fig. 23, . . .	×	25	476
„ 24-26.	— <i>Lagena orbignyana</i> , Seguenza, sp. Fig. 24. × 45 ; fig. 25, × 30 ; fig. 26, . . .	×	60	484
„ 27.	— <i>Lagena siliqua</i> , Rymer Jones, . . .	×	45	478
„ 28-30.	— <i>Lagena seminiformis</i> , Schwager, . . .	×	45-60	478



LAGENA.

PLATE LX.

PLATE LX.

LAGENA.

(*a*, Lateral aspect; *b*, oral aspect.)

		Diam.	Page
Figures 1, 2, 3 (?).	<i>Lagena castrensis</i> , Schwager,	× 75	485
„ 4.	<i>Lagena clathrata</i> , n. sp.,	× 75	485
„ 5.	<i>Lagena quadrata</i> , Williamson, sp. (variety),	× 75	475
„ 6, 7, 9, 12-14.	<i>Lagena lagenoides</i> , Williamson, sp.,	× 60-75	479
„ 11, 15, 16.	<i>Lagena lagenoides</i> , var. <i>tenuistriata</i> , nov.,	× 60-75	479
„ 8 (!), 10, 17 (?), 18-20.	<i>Lagena formosa</i> , Schwager.		480
	Fig. 8. × 75; figs. 10, 20, × 60; fig. 17, × 90; figs. 18, 19,	× 50	
„ 21.	<i>Lagena formosa</i> , var. <i>farosa</i> , Brady,	× 60	480
„ 22.	<i>Lagena formosa</i> , var. <i>comata</i> , Brady,	× 75	480
„ 23.	<i>Lagena squamoso-alata</i> , Brady,	× 60	481
„ 24.	<i>Lagena squamoso-marginata</i> , Parker and Jones,	× 60	481
„ 25.	<i>Lagena alveolata</i> , var. <i>caudigera</i> , Brady,	× 40	488
„ 26-28.	<i>Lagena fimbriata</i> , Brady,	× 60	486
„ 29, 31 (?), 33.	<i>Lagena auriculata</i> , Brady,	× 60	487
„ 30, 32.	<i>Lagena alveolata</i> , n. sp.,	× 60	487
„ 34.	<i>Lagena alveolata</i> , var. <i>substriata</i> , Brady,	× 60	488
„ 35-37.	Winged varieties of <i>Lagena sulcata</i> , Walker and Jacob,	× 75	462
„ 38.	<i>Lagena auriculata</i> , var. <i>costata</i> , Brady,	× 60	487

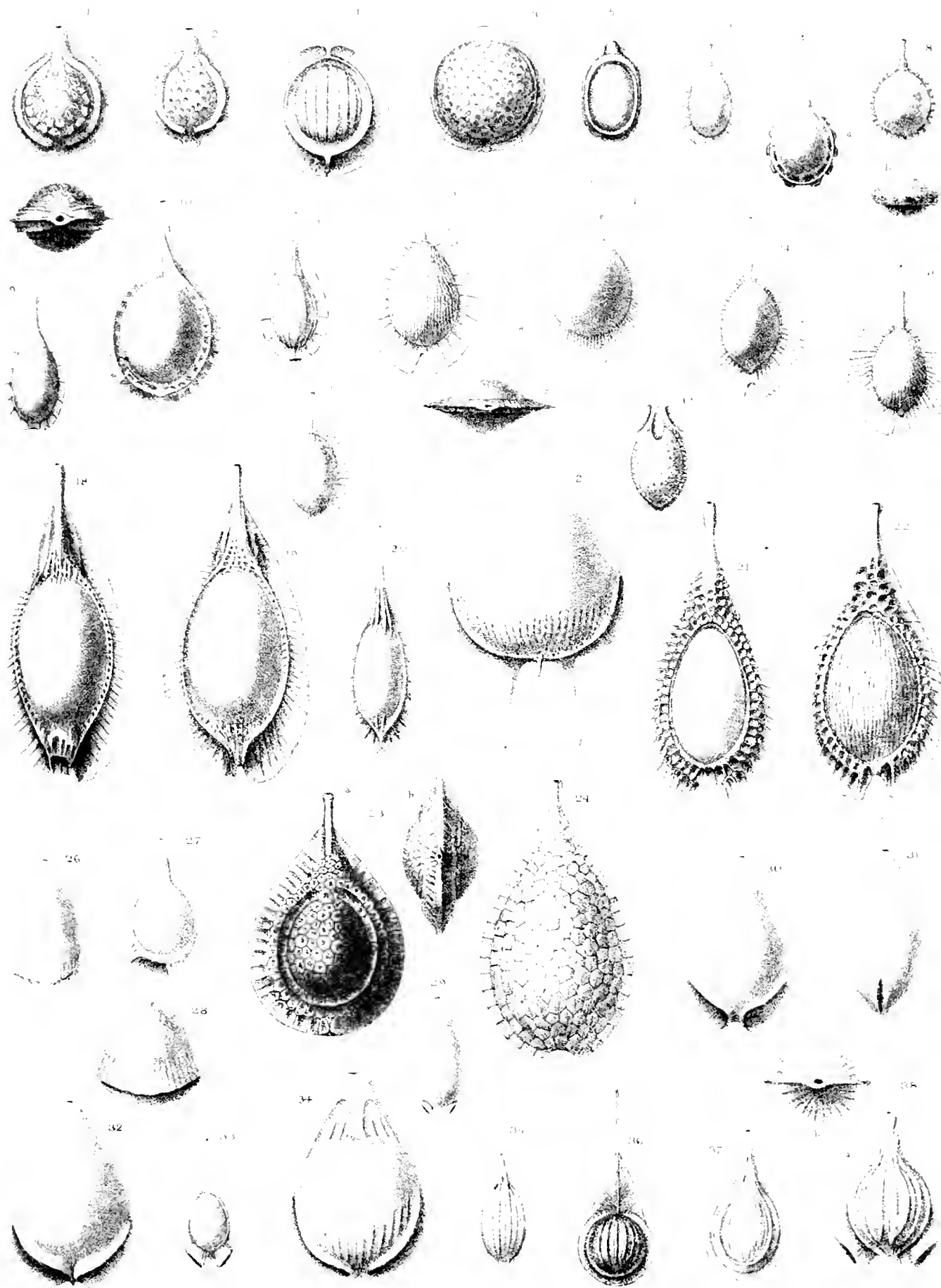


PLATE LXI.

PLATE LXI.

LAGENA.—NODOSARIA.

(*a*, Lateral aspect ; *b*, oral aspect.)

Figure				Diam.	Page
1.—	<i>Lagena variata</i> , Brady,	.	.	× 75	461
„ 2.—	<i>Lagena foveo-punctata</i> , Brady,	.	.	× 100	473
„ 3.—	<i>Lagena quadrulata</i> , Brady,	.	.	× 100	464
„ 4.—	<i>Lagena multicosta</i> , Karrer, sp.,	.	.	× 75	466
„ 5.—	<i>Lagena cressulpta</i> , Brady ; compressed form,	.	.	× 75	467
„ 6, 7.—	<i>Lagena wrightiana</i> , Brady,	.	.	× 90	482
„ 8, 9.—	<i>Lagena radiato-marginata</i> , Parker and Jones,	.	.	× 90	481
„ 10.—	<i>Lagena schulzeana</i> , Brady,	.	.	× 90	482
„ 11.—	<i>Lagena trigono-oblonga</i> , Seguenza and Siddall,	.	.	× 75	475
„ 12, 13.—	<i>Lagena trigono-marginata</i> , Parker and Jones,	.	.	× 100	482
„ 14.—	<i>Lagena trigono-ornata</i> , Brady,	.	.	× 60	483
„ 15, 16.—	<i>Lagena quinquelatera</i> , Brady,	.	.	× 100	484
„ 17–19.—	<i>Nodosaria (Glandulina)</i> , <i>rotundata</i> , Reuss,	.	.	× 30	491
„ 20–22.—	<i>Nodosaria (Glandulina)</i> , <i>lavigata</i> , d'Orbigny,	.	.	× 30	490
„ 23–27.—	<i>Nodosaria calomorpha</i> , Reuss,	.	.	× 50	497
„ 28–31.—	<i>Nodosaria radicular</i> , Linné, sp.,	.	.	× 30	495
„ 32.—	<i>Nodosaria (Glandulina)</i> , <i>aqualis</i> , Reuss, sp.,	.	.	× 30	492

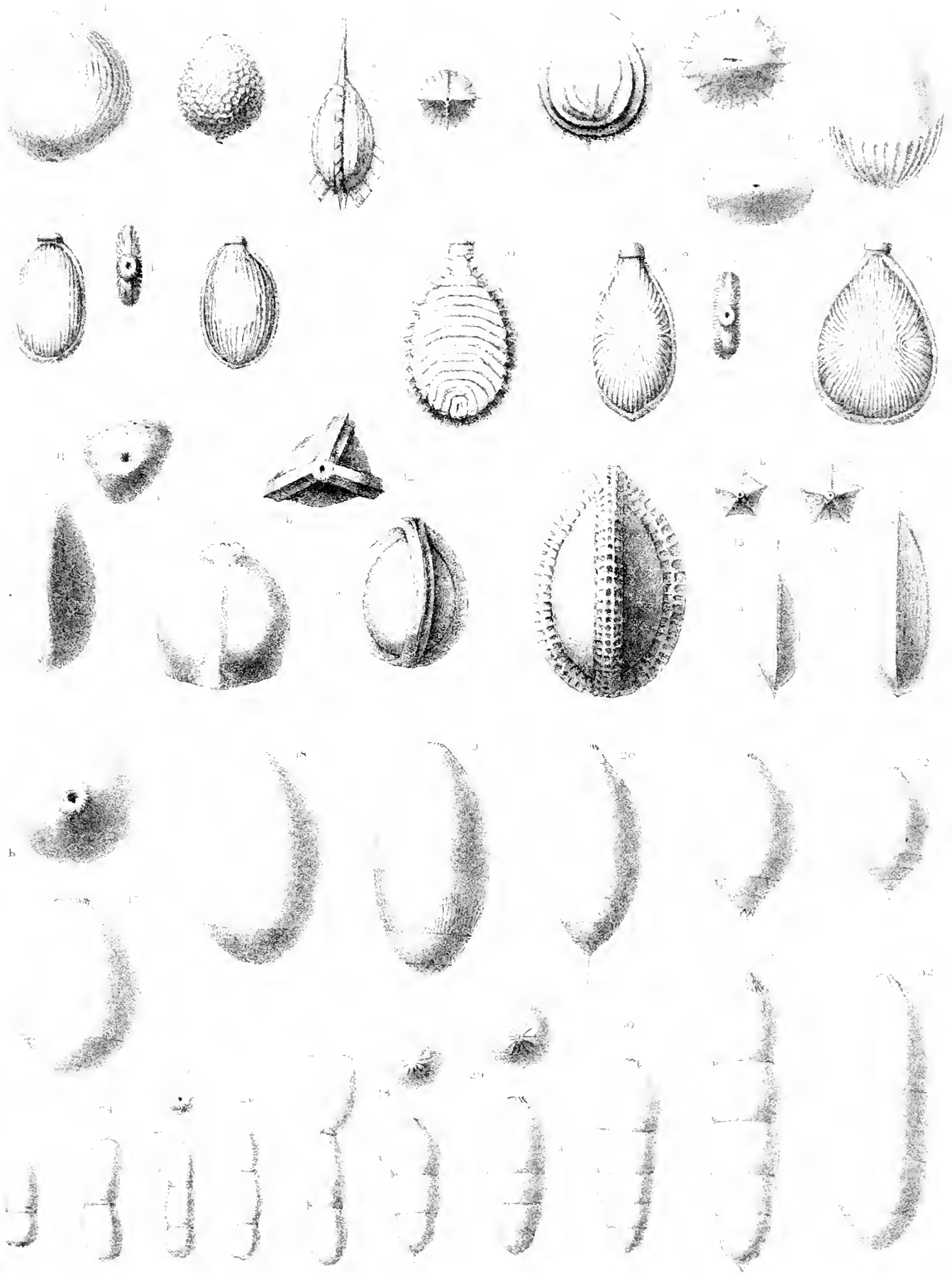


PLATE LXII.

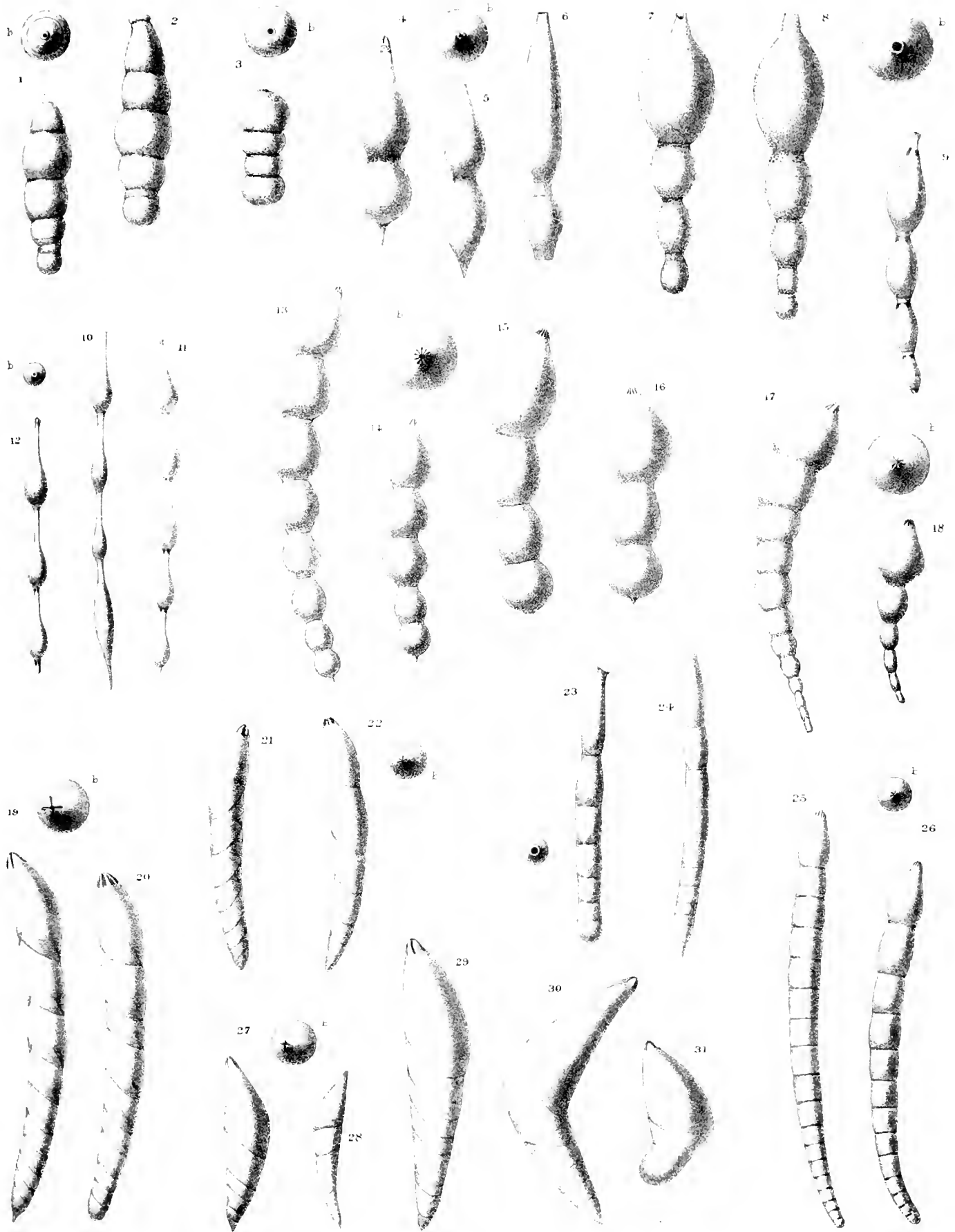
(ZOOLOG. CHALL. EXP., —PART XXII.—1884.)—Y.

PLATE LXII.

NODOSARIA.

(b. Oral aspect.)

	Diam.	Page
Figures 1, 2.— <i>Nodosaria radicular</i> , var. <i>annulata</i> , Terquem and Berthelin,	× 50	496
„ 3.— <i>Nodosaria radicular</i> , var. <i>ambigua</i> , Neugeboren,	× 50	496
„ 4, 5 (and 6 ?).— <i>Nodosaria simplex</i> , Silvestri,	× 35–50	496
„ 7, 8.— <i>Nodosaria subterrenata</i> , Schwager,	× 50	507
„ 9.— <i>Nodosaria inflexa</i> , Reuss,	× 30	498
„ 10–12.— <i>Nodosaria pyrula</i> , d'Orbigny,	× 30–40	497
„ 13–16.— <i>Nodosaria soluta</i> , Reuss,	× 12	503
„ 17, 18.— <i>Nodosaria farcimen</i> , Soldani, sp. (not typical: see woodcuts, p. 499).	× 15	498
„ 19–22.— <i>Nodosaria communis</i> , d'Orbigny,	× 35–50	504
„ 23, 24.— <i>Nodosaria consobrina</i> , d'Orbigny, sp.,	× 50	501
„ 25, 26.— <i>Nodosaria consobrina</i> , var. <i>emaciata</i> , Reuss,	× 15	502
„ 27–29.— <i>Nodosaria mucronata</i> , Neugeboren, sp.,	× 50	506
„ 30, 31.—Monstrous specimens of the same,	× 40	



Sketches by nat. del. et lith.

NODOSARIA

PLATE XLIII

PLATE LXIII.

PLATE LXIII.

NODOSARIA.

(b, Oral aspect.)

			Diam.	Page
Figure	1.— <i>Nodosaria roemeri</i> , Neugeboren, sp., . . .	×	20	505
„	2.— <i>Nodosaria plebeia</i> , Reuss, . . .	×	20	502
„	3–5.— <i>Nodosaria filiformis</i> , d'Orbigny, sp., . . .	.	.	500
	Figs. 3. × 10 ; figs. 4, 5, . . .	×	20	
„	6.— <i>Nodosaria (Glandulina) armata</i> , Reuss, . . .	×	50	494
„	7.— <i>Nodosaria retrorsa</i> , Reuss, sp., . . .	×	50	507
„	8, 9.— <i>Nodosaria (?) abyssorum</i> , Brady, . . .	×	20	504
„	10, 11.—Young or arrested specimens of <i>Nodosaria hispida</i> , d'Orbigny, or <i>Nodosaria setosa</i> , Schwager. (<i>Nodosaria papillosa</i> , Silvestri ?) . . .	×	75	508
„	12–16.— <i>Nodosaria hispida</i> , d'Orbigny, . . .	.	.	507
	Fig. 12. × 45 ; figs. 13, 14, × 30 ; figs. 15, 16, . . .	×	25	
„	17.— <i>Nodosaria verruculosa</i> , Neugeboren, . . .	×	50	509
„	18.—A portion of the shell more highly magnified, . . .	×	100	
„	19–21.— <i>Nodosaria hispida</i> , var. <i>sublineata</i> , nov., . . .	×	35	508
„	22.—A portion of the shell more highly magnified, . . .	×	100	
„	23–26.— <i>Nodosaria costulata</i> , Reuss, . . .	×	15	515
„	27.—A portion of the shell more highly magnified, . . .	×	30	
„	28–31.— <i>Nodosaria scalaris</i> , Batsch, sp., . . .	×	45–50	510
„	32–33.— <i>Nodosaria catenulata</i> , n. sp., . . .	×	40	515
„	34.—A portion of the shell more highly magnified, . . .	×	100	
„	35.— <i>Nodosaria vertebralis</i> , Batsch, sp., . . .	×	40	514

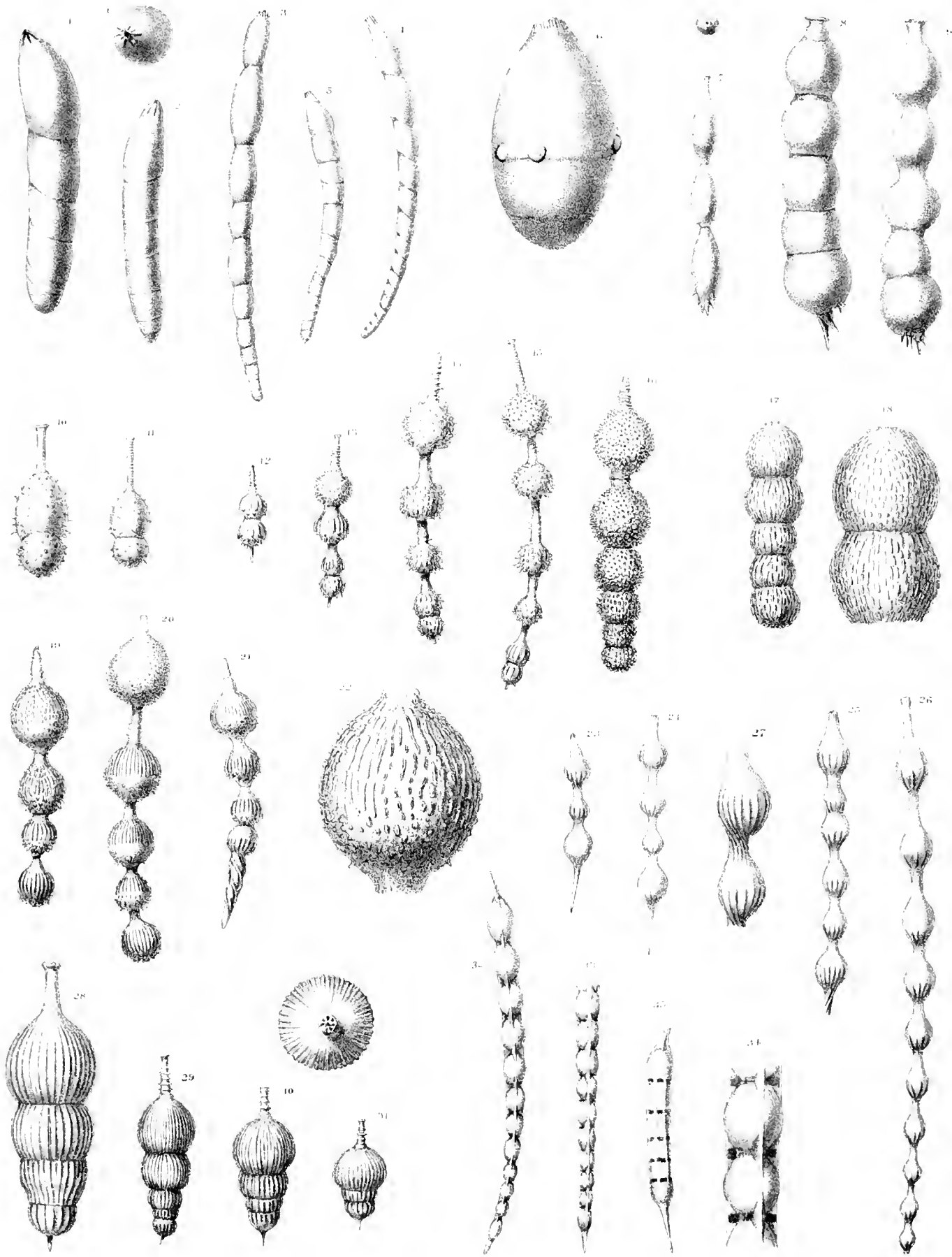


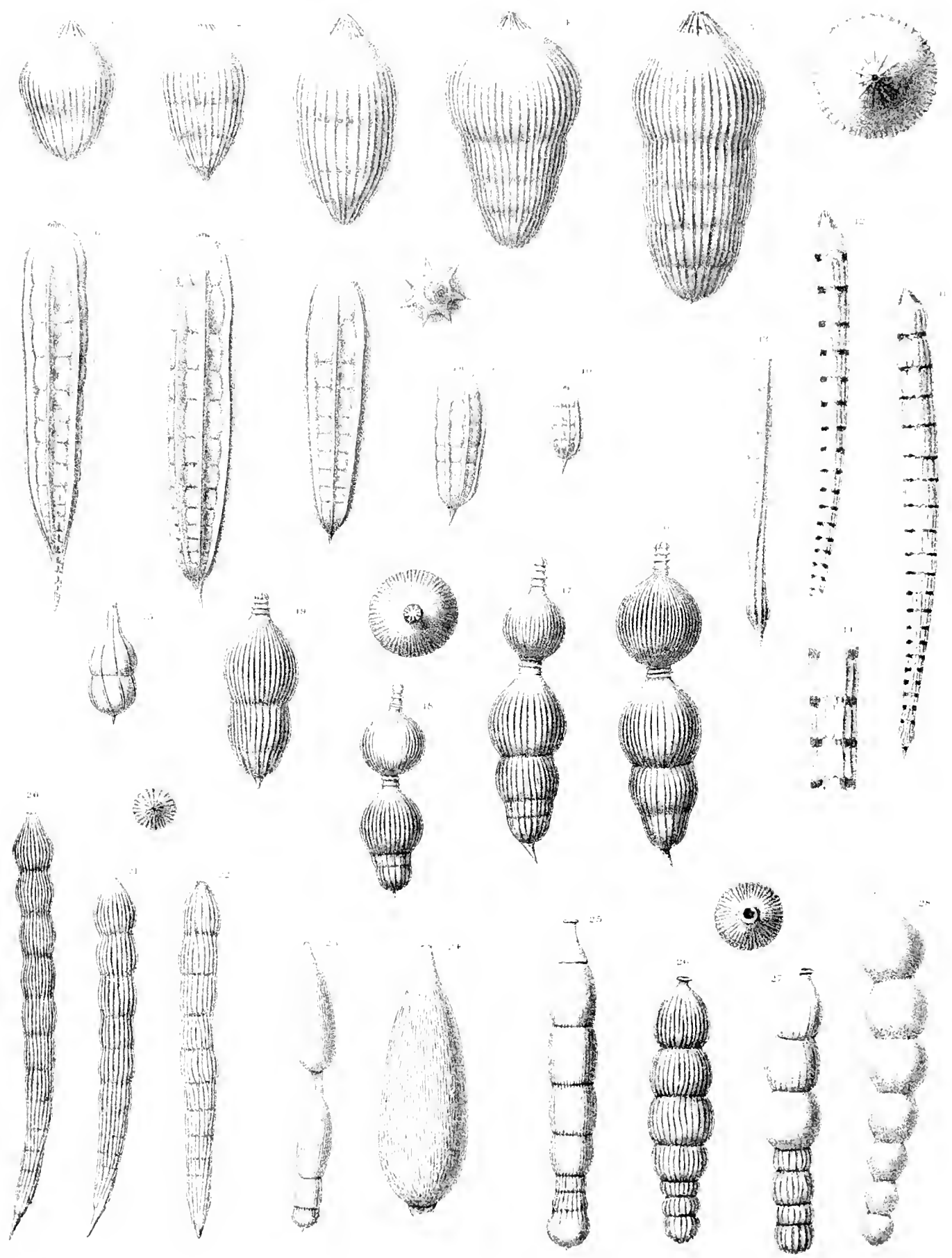
PLATE LXIV.

PLATE LXIV.

NODOSARIA.

(b, Oral aspect.)

			Diam.	Page
Figures 1-5.—	<i>Nodosaria comata</i> , Batsch, sp., . . .	×	50	509
	Specimens in various stages of growth.			
„ 6-10.—	<i>Nodosaria raphanus</i> , Linné, sp., . . .	×	15	512
„ 11-13.—	<i>Nodosaria vertebralis</i> , Batsch, sp., . . .	×	15-18	514
„ 14.—	A portion of a specimen more highly magnified, . . .	×	30	
„ 15.—	<i>Nodosaria proxima</i> , Silvestri, . . .	×	60	511
„ 16-19.—	<i>Nodosaria scalaris</i> , var. <i>separans</i> , nov., . . .	×	40	511
„ 20-22.—	<i>Nodosaria obliqua</i> , Linné, sp., . . .	×	16	513
„ 23.—	<i>Nodosaria subcanaliculata</i> , Neugeboren (var.), . . .	×	40	512
„ 24.—	A portion of the same more highly magnified, . . .	×	80	
„ 25-27.—	<i>Nodosaria perversa</i> , Schwager, . . .	×	50-60	512
„ 28.—	<i>Nodosaria soluta</i> , Reuss,—faintly striate specimen, . . .	×	15	503



At Holbeck ad nat. det. G. Smith

NODOSARIA

1-26

PLATE LXV.

PLATE LXV.

NODOSARIA.—MARGINULINA.—LINGULINA.—FRONDICULARIA.

(b, Oral aspect.)

		Diam.	Page
Figures 1, 2.—	<i>Nodosaria intercellularis</i> , Brady,	× 40	515
„ 3, 4.—	Portions of the shell more highly magnified,	× 100	
„ 5, 6.—	<i>Marginulina glabra</i> , d'Orbigny,	× 30	527
„ 7-9.—	<i>Amphicoryne fals</i> , Jones and Parker, sp.,	× 50-60	556
„ 10-13.—	<i>Marginulina costata</i> , Batsch, sp.,		528
	Fig. 10. × 40; fig. 11, × 30; figs. 12, 13,	× 20	
„ 14, 15.—	<i>Lingulina carinata</i> , var. <i>seminuda</i> , Hantken,	× 12	518
„ 16, 17.—	<i>Lingulina carinata</i> , d'Orbigny,	× 90	517
„ 18.—	<i>Frondicularia spathulata</i> , Brady,	× 60	519
„ 19.—	<i>Frondicularia compta</i> , Brady,	× 60	520
„ 20-23.—	<i>Frondicularia alata</i> , d'Orbigny,		522
	Specimens in different stages of growth.		
	Figs. 20-22. × 15;—fig. 23, young shell,	× 20	

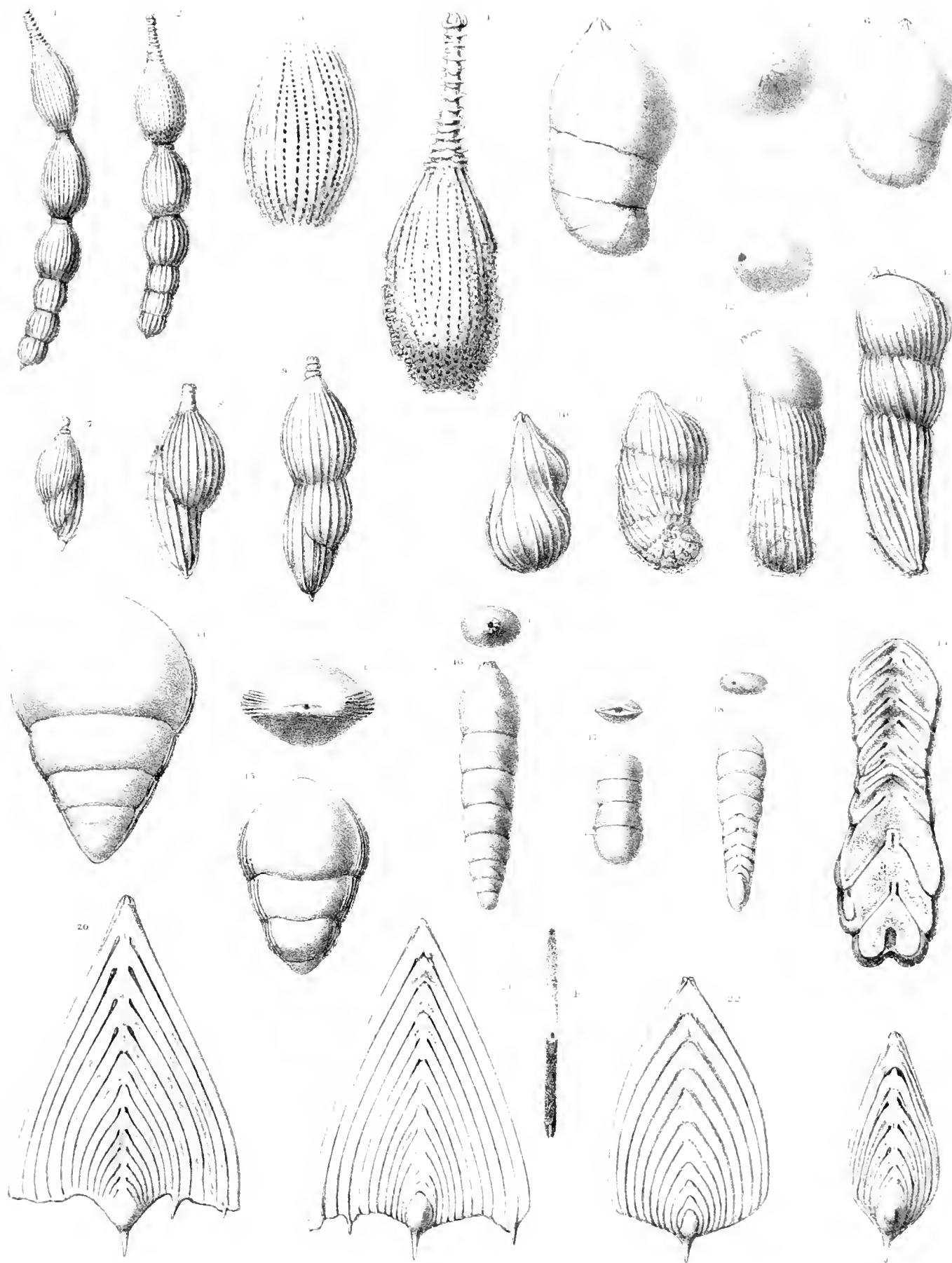


PLATE LXVI.

PLATE LXVI.

FRONDICULARIA.—VAGINULINA.—CRISTELLARIA.

(*b*, Oral aspect.)

	Diam.	Page
Figures 1, 2.— <i>Fronidicularia robusta</i> , n. sp.,		523
Fig. 1 <i>b</i> , Oral aspect. Fig. 1. $\times 75$; fig. 2,	$\times 17$	
„ 3–5.— <i>Fronidicularia alata</i> , d'Orbigny (Flabelline variety),	$\times 15-20$	522
„ 6, 7.— <i>Fronidicularia interrupta</i> , Karrer,	$\times 60$	523
„ 8–12.— <i>Fronidicularia inaequalis</i> , Costa,		521
Figs. 8–11. $\times 60$; fig. 12,	$\times 45$	
„ 13–15.— <i>Vaginulina legumen</i> , Linné, sp.,	$\times 30$	530
Fig. 15 <i>b</i> , Oral aspect.		
„ 16.— <i>Vaginulina margaritifera</i> , Batsch, sp.,	$\times 13$	532
„ 17.— <i>Cristellaria obtusata</i> , Reuss,	$\times 25$	536
<i>b</i> , Oral aspect.		
„ 18, 19.— <i>Vaginulina bruckenthali</i> , Neugenboren,	$\times 17$	532
„ 20.—Intermediate specimen with Vaginuline commencement, and final Nodosarian chamber,	$\times 60$	
„ 21–23.— <i>Cristellaria tenuis</i> , Bornemann, sp.,		
Figs. 21. $\times 35$; figs. 22, 23,	$\times 20$	535
„ 24, 25.— <i>Cristellaria obtusata</i> , var. <i>subalata</i> , nov.,	$\times 20$	536

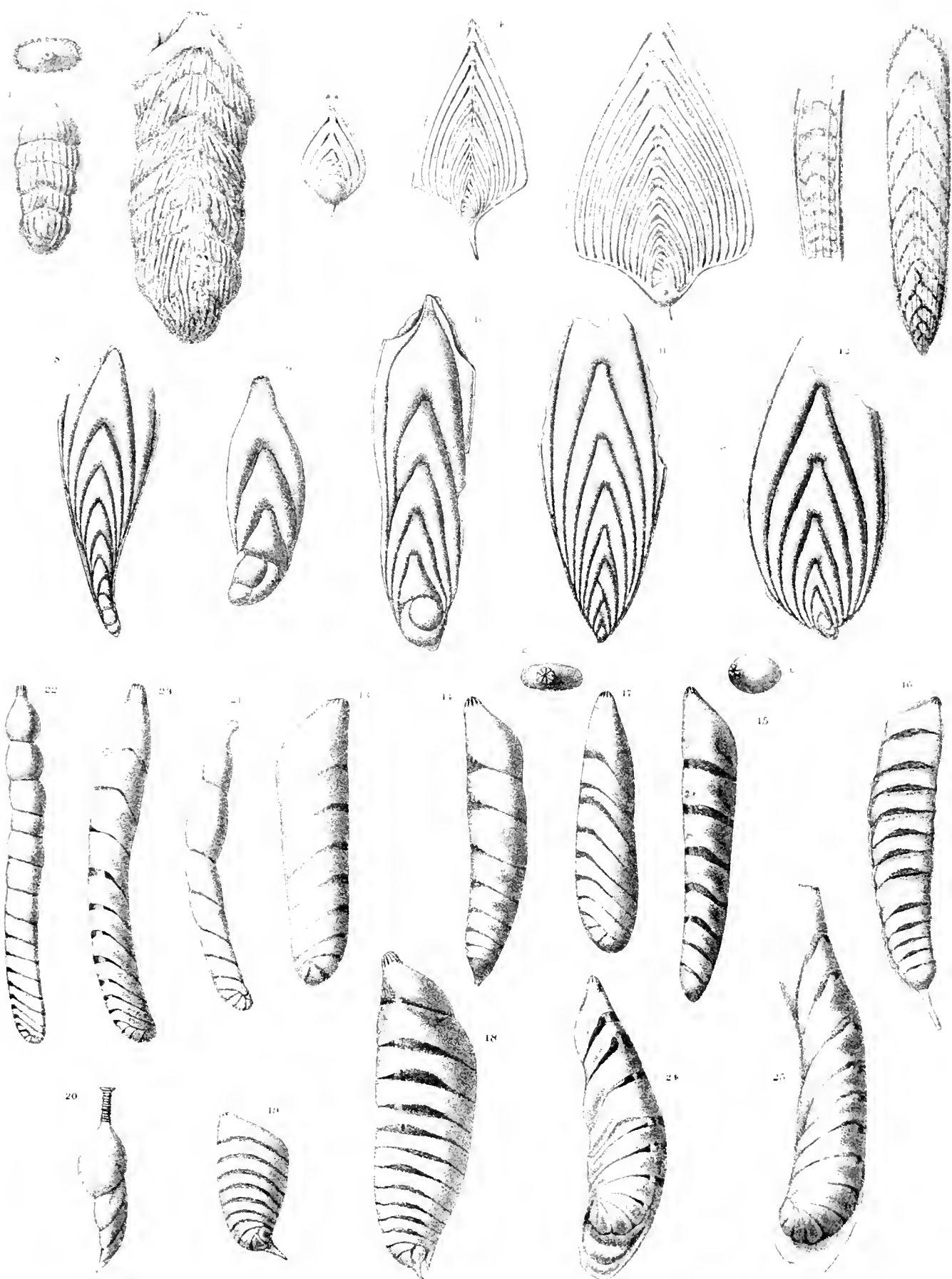
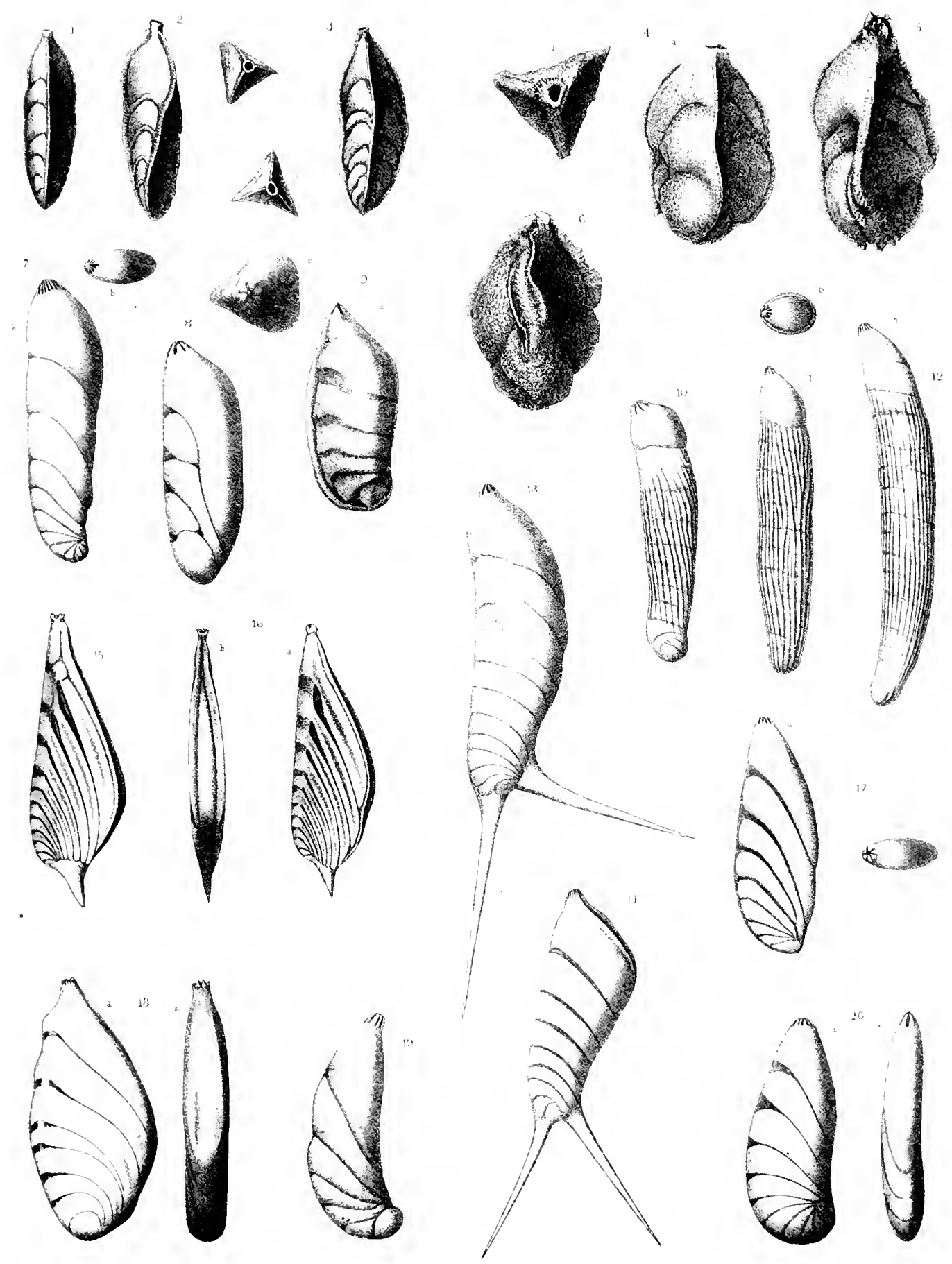


PLATE LXVII.

PLATE LXVII.

RHABDOGONIUM.—VAGINULINA.—CRISTELLARIA.

		Diam.	Page
Figures 1-3.—	<i>Rhabdogonium tricarinatum</i> , d'Orbigny, sp., .	× 75	525
	<i>b, b</i> , Oral aspects.		
„ 4-6.—	<i>Rhabdogonium minutum</i> , Reuss, . . .	× 75	526
	<i>b</i> , Oral aspect.		
„ 7.—	<i>Cristellaria schloenbachii</i> , Reuss, . . .	× 25	539
	<i>b</i> , Oral aspect		
„ 8.—	Anomalous specimen, probably of the same species,	× 60	
„ 9.—	<i>Cristellaria italica</i> , var. <i>volpicellii</i> , Costa, .	× 50	545
„ 10-12.—	<i>Vaginulina linearis</i> , Montagu, sp., . . .	× 15	532
	<i>b</i> , Oral aspect.		
„ 13, 14.—	<i>Vaginulina spinigera</i> , Brady, . . .	× 17	531
„ 15, 16.—	<i>Vaginulina patens</i> , n. sp., . . .	× 75	533
	Figs. 15, 16 <i>a</i> . Lateral aspects; <i>b</i> , front peripheral aspect.		
„ 17, 19, 20.—	<i>Cristellaria crepidula</i> , Fichtel and Moll, sp., .		542
	Fig. 17. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect, . . .	× 60	
	Figs. 19, 20 <i>a</i> . Lateral aspect; <i>b</i> , front peripheral aspect,	× 50	
„ 18.—	<i>Cristellaria lata</i> , Cornuel, sp., . . .	× 25	539
	<i>a</i> , Lateral aspect; <i>b</i> , front peripheral aspect.		



All figures are natural size, except where noted

drawn by Miss M. A. H. H.

RHABDOCONIUM-VAGINULINA-CRISTELLARIA

PLATE LXVIII.

PLATE LXVIII.

CRISTELLARIA.

		Diam.	Page
Figure 1.—	<i>Cristellaria crepidula</i> , Fichtel and Moll, sp., Specimen mounted in Canada balsam; with young shells in some of the later chambers.	× 50	542
.. 2.—	Portion of the same, more highly magnified,	× 100	
.. 3, 4.—	<i>Cristellaria tricarinella</i> , Reuss, <i>l</i> , Front peripheral aspect.	× 50	540
.. 5–9.—	<i>Cristellaria siddalliana</i> , Brady, Figs. 5–8. Lateral aspect; fig. 9, front peripheral aspect.	× 35	541
.. 10.—	<i>Cristellaria cassis</i> , Fichtel and Moll, sp.,	× 30	552
.. 11–16.—	<i>Cristellaria variabilis</i> , Reuss, Figs. 11–15. Lateral aspect of specimens in various stages of growth; fig. 16, oral aspect.	× 50	541
.. 17, 18, 20–23.—	<i>Cristellaria italica</i> , Defrance, sp., Figs. 17, 18. Lateral aspect; fig. 20, front peripheral aspect; figs. 21–23, oral aspect.	× 15–20	544
.. 19.—	<i>Cristellaria latifrons</i> , n. sp. (see also Pl. CXIII. fig. 11).	× 20	544

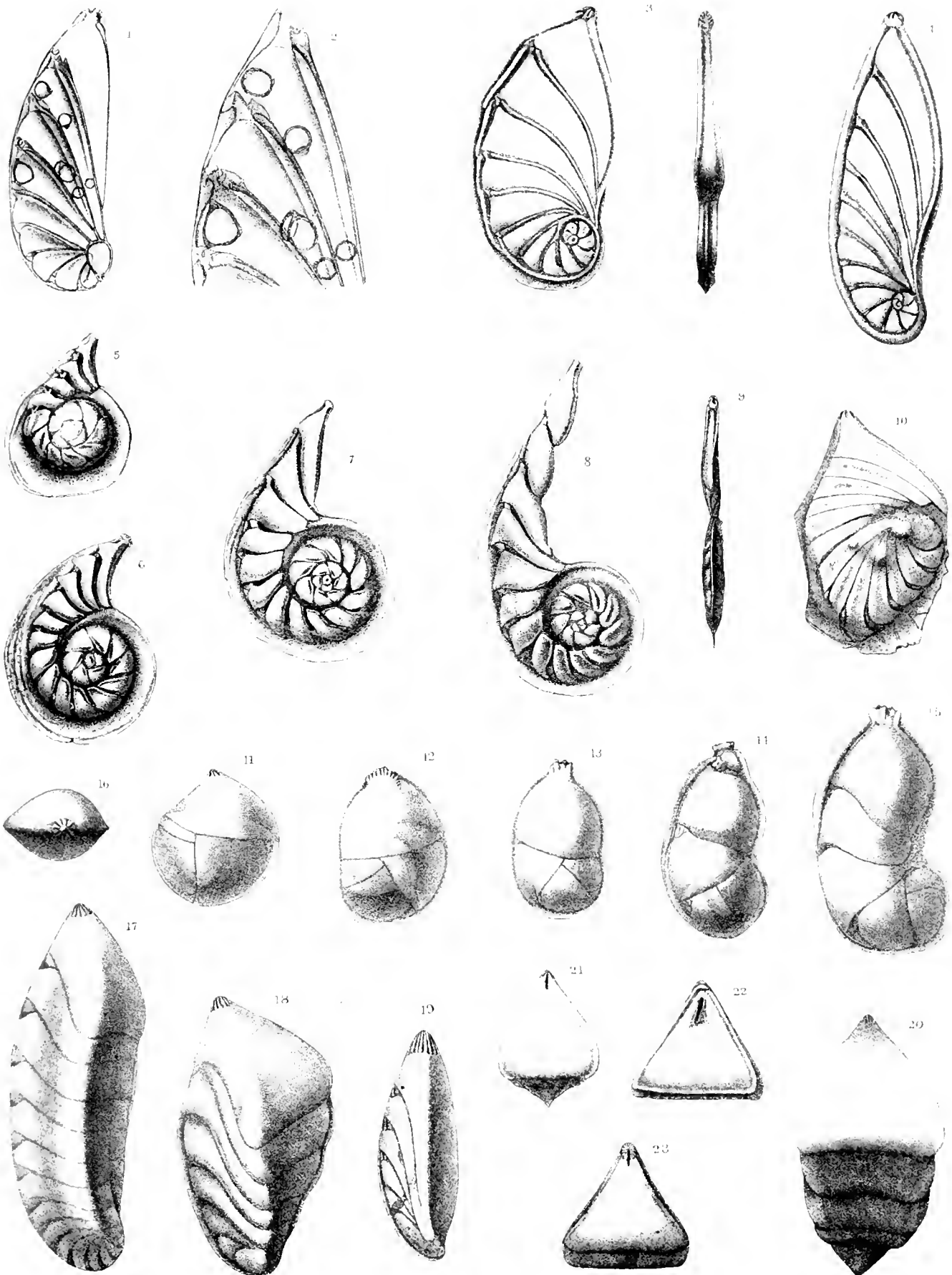
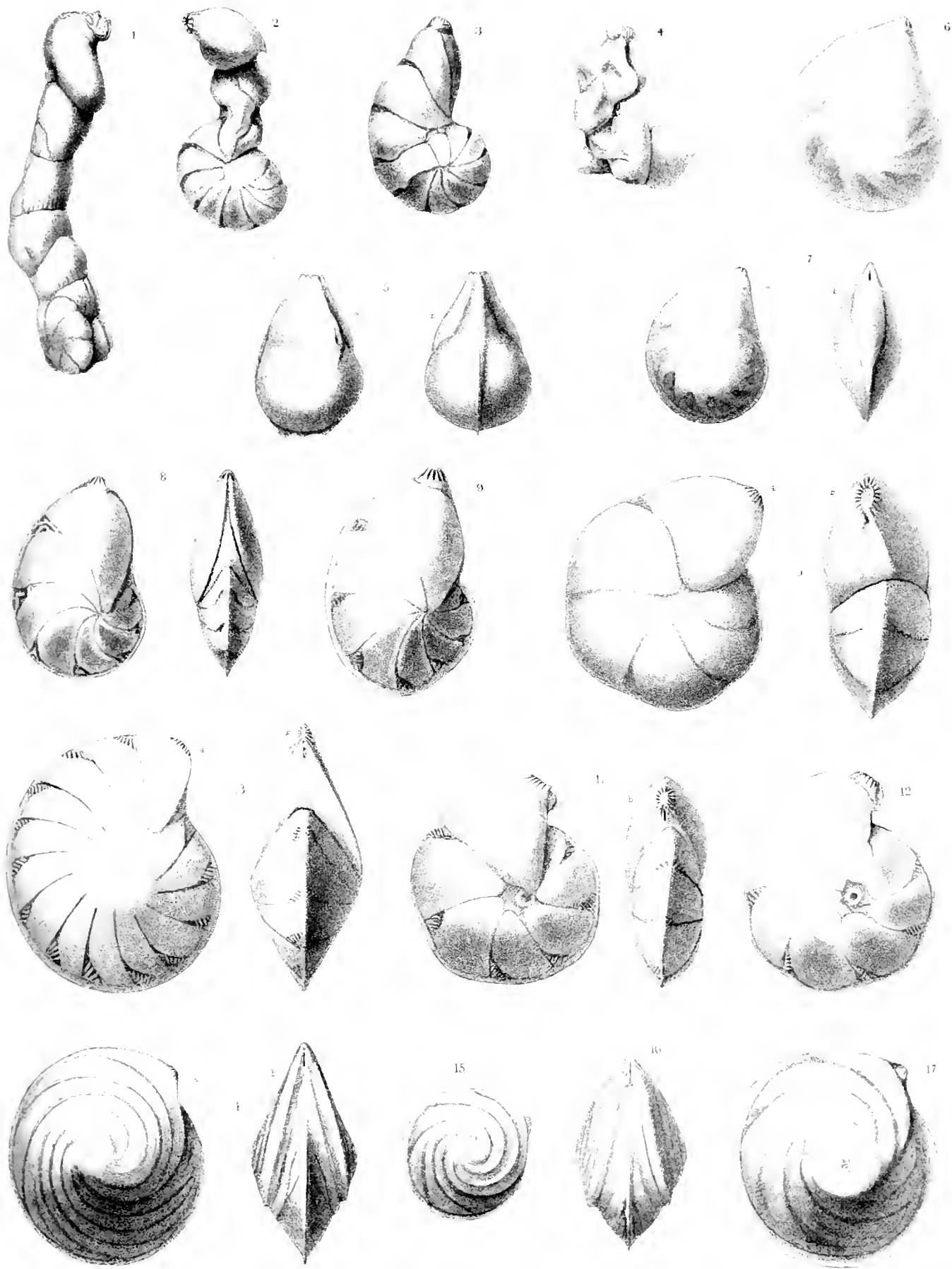


PLATE LXIX.

PLATE LXIX.

CRISTELLARIA.

		Diam.	Page
Figures 1-4.—	<i>Cristellaria articulata</i> , Reuss,	× 20	547
	Wild-growing forms, abundant off Nightingale Island, Tristan d'Acunha.		
„ 5.—	<i>Cristellaria</i> , sp.,	× 35	
	Young specimen, possibly of <i>Cristellaria deformis</i> , Reuss, or some similar variety.		
„ 6, 7.—	<i>Cristellaria convergens</i> , Bornemann,		546
	Fig. 6. Lateral aspect,	× 40	
	Fig. 7. <i>a</i> , Lateral aspect; <i>b</i> , front peripheral aspect,	× 50	
„ 8, 9.—	<i>Cristellaria gibba</i> , d'Orbigny,	× 25	546
	Figs 8 <i>a</i> , 9. Lateral aspect; <i>b</i> , front peripheral aspect.		
„ 10-12.—	<i>Cristellaria articulata</i> , Reuss,		547
	Fig. 10. <i>a</i> , Lateral aspect; <i>b</i> , front peripheral aspect,	× 16	
	Fig. 11 <i>a</i> , 12. Lateral aspect; <i>b</i> , front peripheral aspect,	× 35	
„ 13.—	<i>Cristellaria rotulata</i> , Lamarck, sp.,	× 12	547
	<i>a</i> , Lateral aspect; <i>b</i> , front peripheral aspect.		
„ 14-16.—	<i>Cristellaria vortex</i> , Fichtel and Moll, sp.,	× 30	548
	Figs 14 <i>a</i> , 15. Lateral aspect; figs. 14 <i>b</i> , 16, front peripheral aspect.		
„ 17.—	<i>Cristellaria orbicularis</i> , d'Orbigny, sp.,	× 30	549
	Lateral aspect		



CRISTELLARIA

PLATE LXX.

PLATE LXX.

CRISTELLARIA.

			Diam.	Page
Figure	1.— <i>Cristellaria crassa</i> , d'Orbigny,	×	40	549
	<i>a</i> , Lateral aspect ; <i>b</i> , front peripheral aspect.			
„	2.— <i>Cristellaria nitida</i> , d'Orbigny,	×	30	549
	<i>a</i> , Lateral aspect ; <i>b</i> , front peripheral aspect.			
„	3.— <i>Cristellaria reniformis</i> , d'Orbigny,	×	25	539
	<i>a</i> , Lateral aspect ; <i>b</i> , front peripheral aspect.			
„	4-6.— <i>Cristellaria cultrata</i> , Montfort, sp.,			550
	Fig. 4. <i>a</i> , Lateral aspect ; <i>b</i> , front peripheral aspect,	×	16	
	Fig. 5, 6. Lateral aspects. Fig. 5 × 15 diam. ; fig. 6	×	35	
„	7, 8.—Specimens of the same, with dentate carina,	×	20	550
„	9-15.— <i>Cristellaria calcar</i> , Linné, sp.,			551
	Lateral aspect ; figs. 9-12, 15, × 35 diam. ; figs. 13, 14,	×	25	
„	16.— <i>Cristellaria papillosa</i> , Fichtel and Moll,	×	20	553
	Lateral aspect.			
„	17, 18.— <i>Cristellaria mamilligera</i> , Karrer,	×	20	553
	Lateral aspect.			

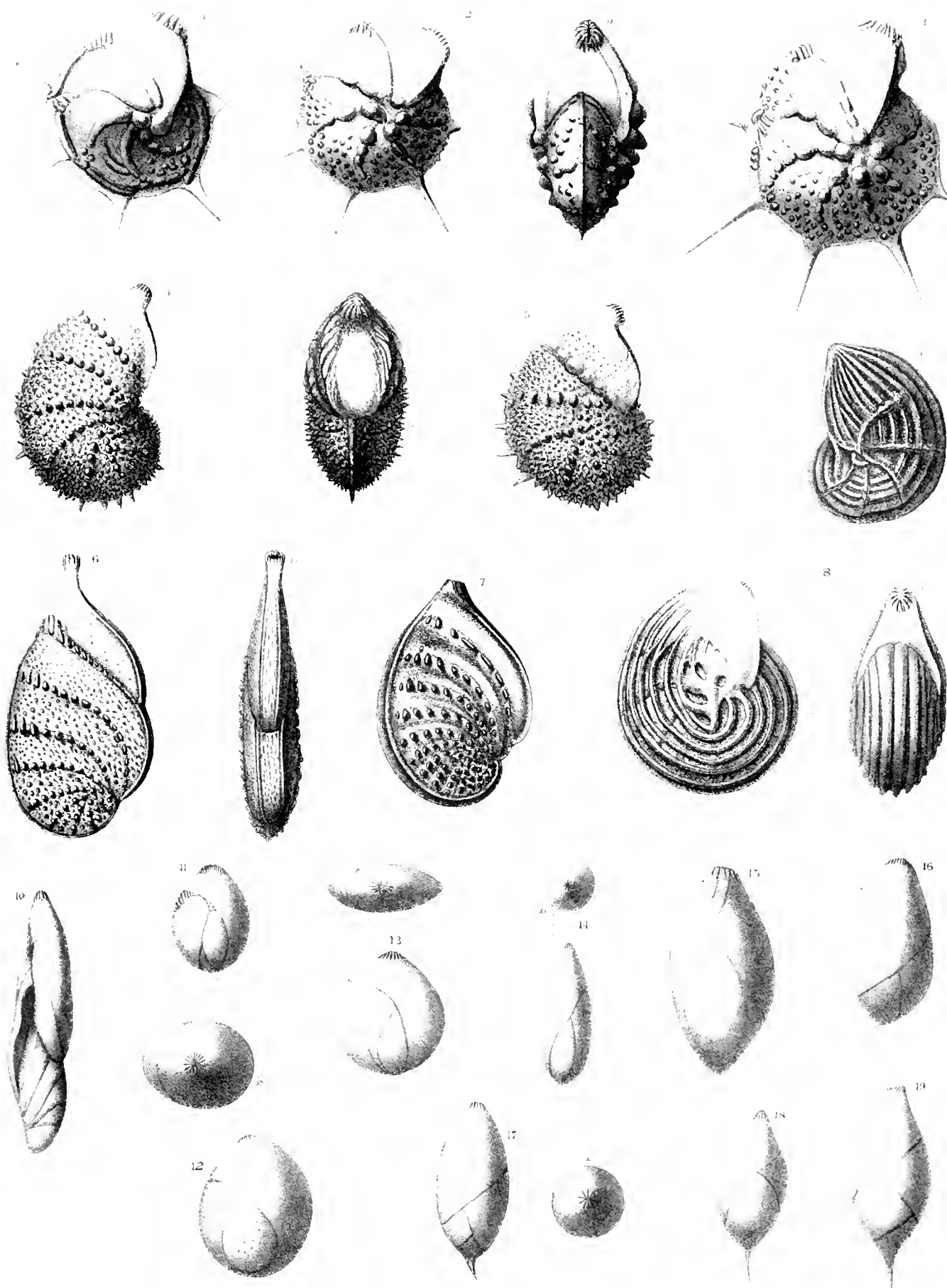


PLATE LXXI.

PLATE LXXI.

CRISTELLARIA.—POLYMORPHINA.

			Diam.	Page
Figures	1-3.— <i>Cristellaria cchinata</i> , d'Orbigny, sp., . . . . .	.	.	554
	<i>b</i> , Front peripheral aspect; fig. 1, $\times 30$; figs. 2, 3, . . . . .	.	$\times 20$	
,,	4, 5.— <i>Cristellaria aculeata</i> , d'Orbigny, . . . . .	.	$\times 25$	555
	<i>b</i> , Front peripheral aspect.			
,,	6, 7.— <i>Cristellaria gemmata</i> , Brady, . . . . .	.	$\times 35$	554
	<i>b</i> , Front peripheral aspect.			
,,	8, 9.— <i>Cristellaria costata</i> , Fichtel and Moll, sp., . . . . .	.	$\times 35$	555
	<i>b</i> , Front peripheral aspect.			
	10.—Dimorphous specimen, the earlier chambers arranged as in <i>Cristellaria</i> , the later ones as in <i>Polymorphina</i>, . . . . .	.	$\times 50$	
,,	11.— <i>Polymorphina lactea</i> , Walker and Jacob, . . . . .	.	$\times 50$	559
,,	12.— <i>Polymorphina gibba</i> , d'Orbigny, . . . . .	.	$\times 40$	561
	<i>b</i> , Oral aspect.			
,,	13.— <i>Polymorphina amygdaloides</i> , Reuss, . . . . .	.	$\times 75$	560
	<i>b</i> , Oral aspect.			
,,	14.— <i>Polymorphina lactea</i> , Walker and Jacob,—elongate variety, . . . . .	.	$\times 75$	559
	<i>b</i> , Oral aspect.			
,,	15, 16.— <i>Polymorphina sororia</i> , Reuss, . . . . .	.	$\times 50$	562
,,	17-19.— <i>Polymorphina sororia</i> , var. <i>cuspidata</i> , nov., . . . . .	.	$\times 60$	563
	<i>b</i> , Oral aspect.			



CRUSTELLARIA-POLYMORPHA

PLATE LXXII.

PLATE LXXII.

POLYMORPHINA.

			Diam.	Page
Figures 1-3.—	<i>Polymorphina angusta</i> , Egger,	×	45-60	563
	<i>b</i> , Oral aspect.			
„ 4.—	<i>Polymorphina sororia</i> , var. <i>cuspidata</i> , nov.,	×	50	563
	<i>b</i> , Oral aspect.			
„ 5, 6.—	<i>Polymorphina lanceolata</i> , Reuss,	×	45	564
	<i>b, b</i> , Oral aspect.			
„ 7, 8.—	<i>Polymorphina orata</i> , d'Orbigny,	×	25	564
	<i>b</i> , Oral aspect.			
„ 9-11.—	<i>Polymorphina compressa</i> , d'Orbigny,			565
	<i>b</i> , Oral aspect.			
	Fig. 9, × 18 diam.; fig. 10, × 25 diam.; fig. 11,	×	40	
„ 12-15.—	<i>Polymorphina elegantissima</i> , Parker and Jones,	×	50	566
	<i>b, b, b</i> , Oral aspect.			
„ 16, 17.—	<i>Polymorphina sequenzana</i> , n. sp.,	×	40	567
	<i>b</i> , Oral aspect.			
„ 18.—	<i>Polymorphina thomini</i> , d'Orbigny,	×	18	567
„ 19.—	<i>Polymorphina communis</i> , d'Orbigny,	×	50	568
„ 20.—	<i>Polymorphina problema</i> , d'Orbigny,	×	40	568
	<i>b</i> , Oral aspect.			

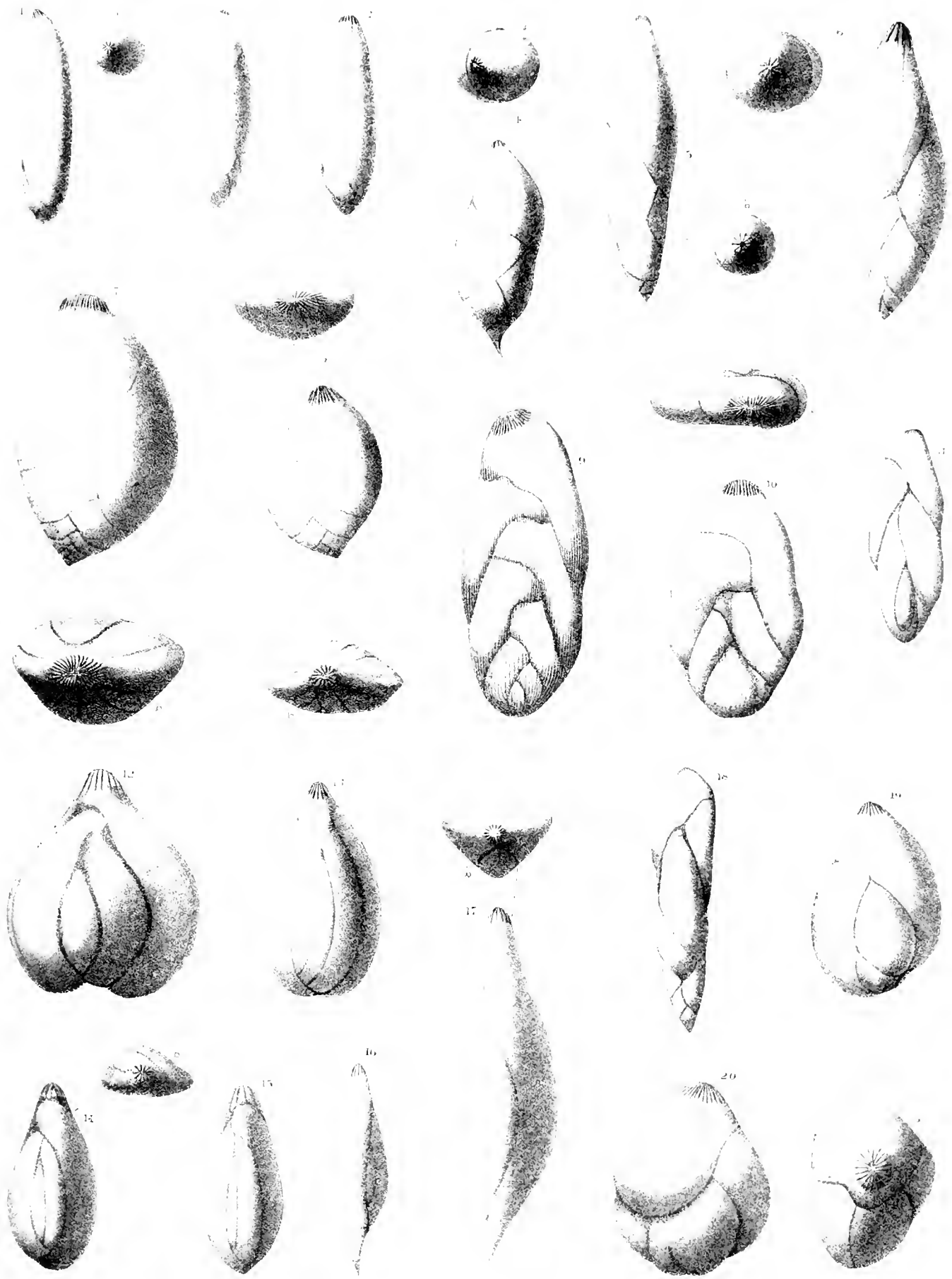


PLATE LXXIII.

PLATE LXXIII.

POLYMORPHINA.

			Diam.	Page
Figure 1.— <i>Polymorphina problema</i> , d'Orbigny,	.	.	× 40	568
<i>b</i> , Oral aspect.				
.. 2-4.— <i>Polymorphina oblonga</i> , d'Orbigny,	.	.	× 40	569
<i>b</i> , Oral aspect.				
.. 5-8. — <i>Polymorphina rotundata</i> , Bornemann, sp.,	.	.	× 30	570
<i>b, b</i> , Oral aspect.				
.. 9, 10.— <i>Polymorphina myristiformis</i> , Williamson,	.	.	× 60-75	571
<i>b</i> , Oral aspect.				
.. 11-13.— <i>Polymorphina regina</i> , Brady, Parker, and Jones,	.	.	× 35 50	571
<i>b</i> , Oral aspect.				
.. 14.— <i>Polymorphina lactea</i> , fistulose form,	.	.	× 50	560
.. 15.— <i>Polymorphina sororia</i> , fistulose form,	.	.	× 30	562
.. 16.— <i>Polymorphina gibba</i> , fistulose form,	.	.	× 35	562
.. 17.— <i>Polymorphina compressa</i> , fistulose form.	.	.	× 50	566
.. 18, 19.— <i>Polymorphina longicollis</i> , Brady,	.	.	× 50 60	572
<i>b</i> , Oral aspect.				



PLATE LXXIV.

PLATE LXXIV.

UVIGERINA.

		Diam.	Page
Figures 1-3.—	<i>Uvigerina canariensis</i> , d'Orbigny, . . . . .	.	573
	Lateral aspect ; fig. 1, $\times 50$ diam.; fig. 2, $\times 60$; fig. 3,	\times 75	
„ 4-7.—	<i>Uvigerina tenuistriata</i> , Reuss, . . . . .	.	574
	Figs. 4, 5. Lateral aspect ; <i>b</i> , oral aspect,	\times 50	
	Figs. 6, 7. Lateral aspect ; <i>b</i> , oral aspect,	\times 45	
„ 8-10.—	<i>Uvigerina schwageri</i> , n. sp.,	\times 30	575
	Figs. 8, 9. Lateral aspect ; <i>b</i> , oral aspect.		
	Fig. 10. Young specimen.		
„ 11-14.—	<i>Uvigerina pygmaea</i> , d'Orbigny, . . . . .	.	575
	Figs. 11, 12. Typical form, lateral aspect ; <i>b</i> , oral aspect,	\times 50	
	Figs. 13, 14. Elongate variety, lateral aspect ; <i>b</i> , oral aspect,	\times 60	
„ 15-18.—	<i>Uvigerina angulosa</i> , Williamson,	\times 60	576
	Figs. 15-18. Lateral aspect ; <i>b</i> , oral aspect.		
„ 19, 20.—	<i>Uvigerina angulosa</i> , var. <i>spinipes</i> , Brady,	\times 60	577
	Figs. 19, 20. Lateral aspect ; <i>b</i> , oral aspect.		
„ 21, 23.—	<i>Uvigerina porrecta</i> , Brady,	\times 70	577
	Lateral aspect.		
„ 24-26.—	<i>Uvigerina</i> , sp.,	\times 40-55	575
	Intermediate specimens connecting <i>Uvigerina pygmaea</i> with <i>Uvigerina aculeata</i> .		

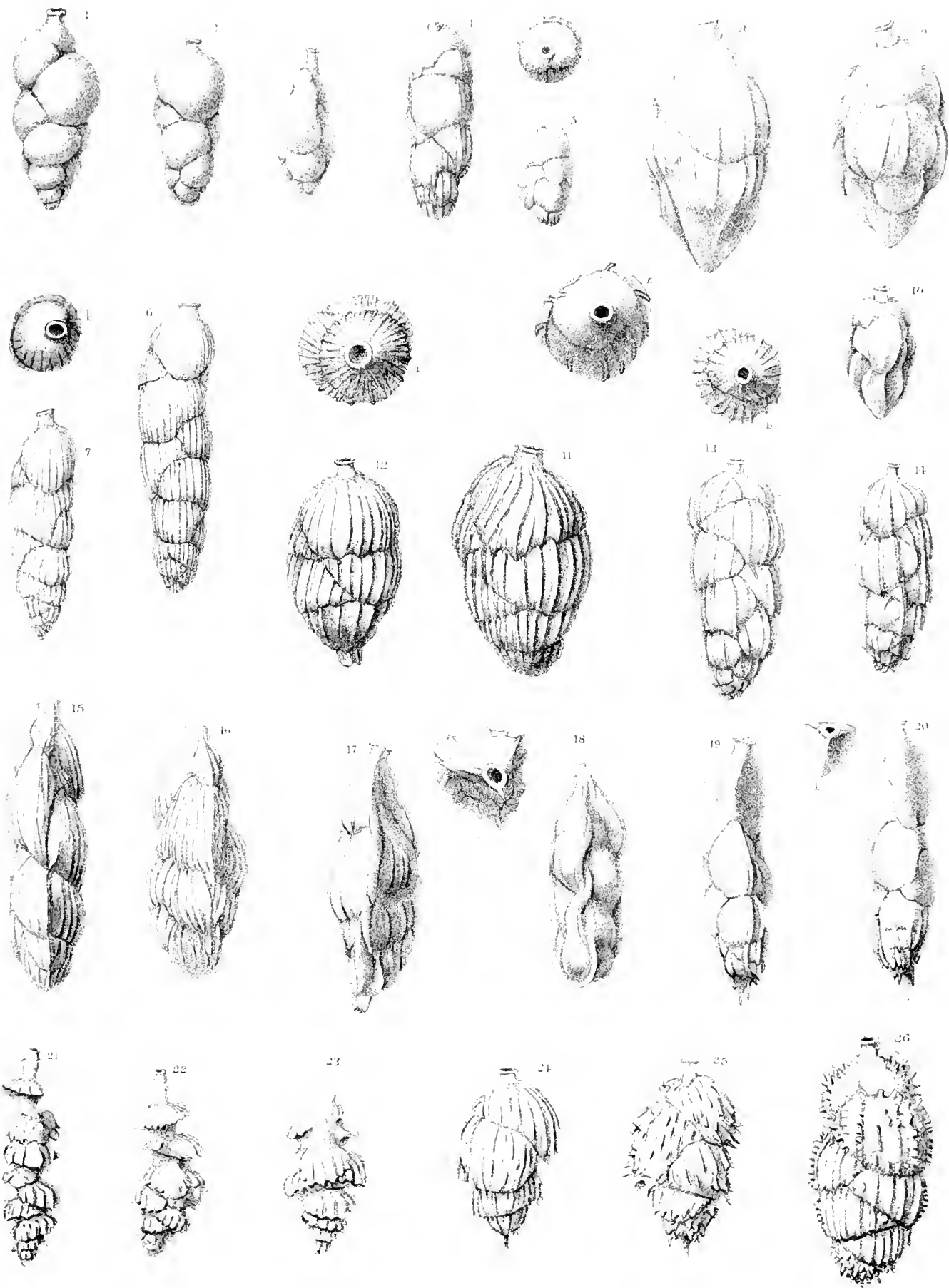


PLATE LXXV.

PLATE LXXV.

UVIGERINA.—SAGRINA.

			Diam.	Page
Figures 1-3.—	<i>Uvigerina aculeata</i> , d'Orbigny,	×	35	578
	Fig. 2. Typical specimen—lateral aspect; <i>b</i> , oral aspect.			
	Figs. 1, 3. Intermediate specimens connecting the species with the costate forms,			575
„ 4, 5.—	<i>Uvigerina brannensis</i> , Karrer,	×	45	577
	Lateral aspect.			
„ 6-8.—	<i>Uvigerina asperula</i> , Czjzek,	×	50	578
	Figs. 6, 7, 8. Lateral aspect; <i>b</i> , oral aspect.			
„ 9.—	<i>Uvigerina asperula</i> , var. <i>auvergnana</i> , d'Orbigny,	×	40	579
	Lateral aspect.			
„ 10, 11.—	<i>Uvigerina asperula</i> , var. <i>ampullacea</i> , nov.,	×	60	579
	Figs. 10, 11. Lateral aspect; <i>b</i> , oral aspect.			
„ 12-14.—	<i>Uvigerina interrupta</i> , Brady,	×	70	580
	Lateral aspect.			
„ 15-17.—	<i>Sagrina columellaris</i> , Brady,	×	45	581
	Figs. 15, 16, 17. Lateral aspect; <i>b</i> , oral aspect.			
„ 18-20.—	<i>Sagrina bifrons</i> , Brady,	×	50	582
	Figs. 18, 19, 20. Lateral aspect; <i>b</i> , oral aspect.			
„ 21-24.—	<i>Sagrina raphanus</i> , Parker and Jones,			585
	Figs. 21, 22, 23. Lateral aspect; <i>b</i> , <i>b</i> , oral aspect,	×	60	
	Figs. 24. Elongate tapering variety,	×	45	
„ 25, 26.—	<i>Sagrina striata</i> , Schwager,	×	45	584
	Lateral aspect.			

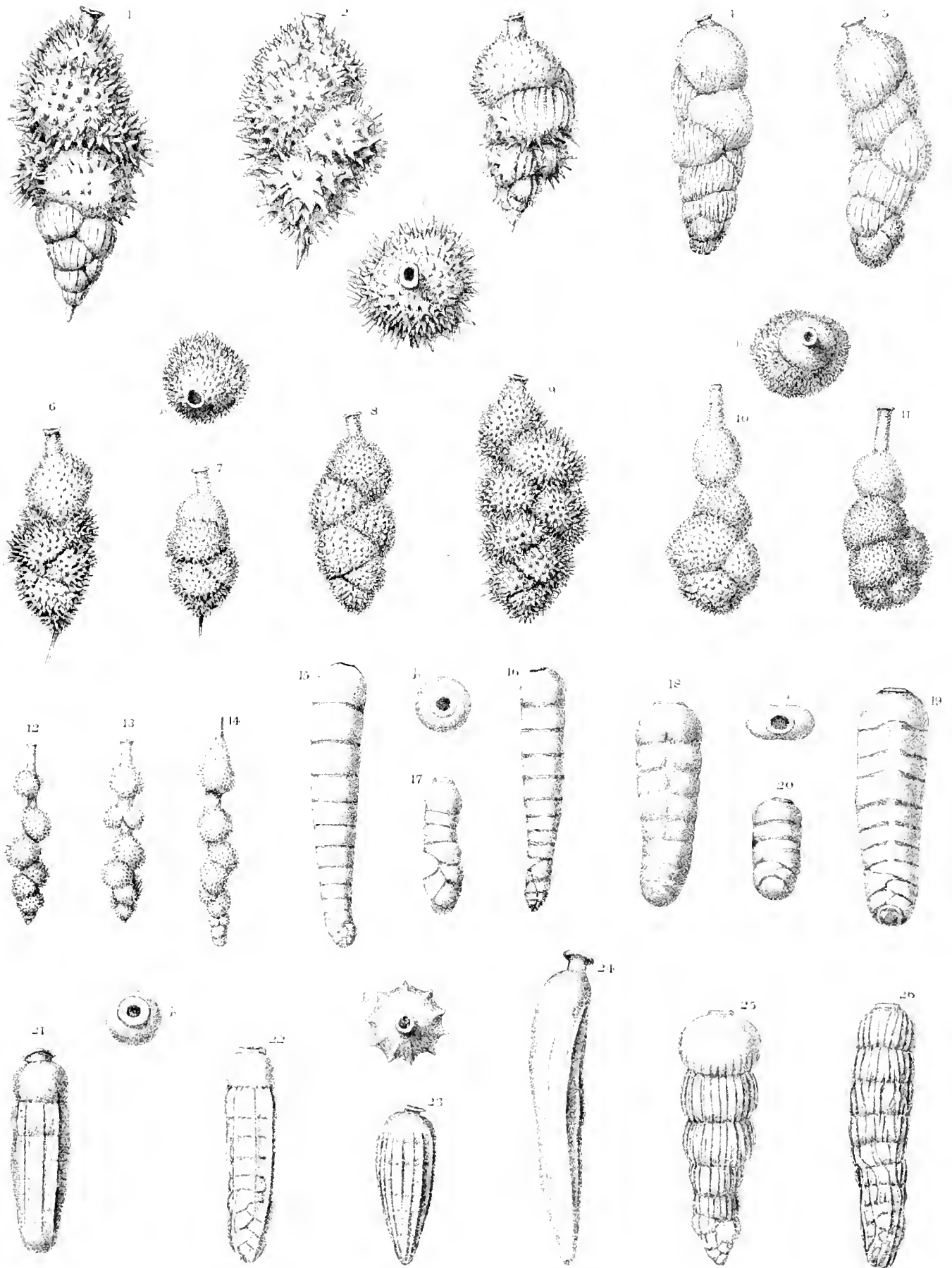


PLATE LXXVI.

PLATE LXXVI.

SAGRINA.—RAMULINA.—NUBECULARIA.

		Diam.	Page
Figures 1-3.— <i>Sagrina dimorpha</i> , Parker and Jones,	×	60	582
Figs. 1, 2, 3. Lateral aspect; <i>b</i> , oral aspect.			
„ 4-10.— <i>Sagrina virgula</i> , Brady, . . . . .	.		583
Figs. 4-7. Typical shallow-water form,			
Figs. 8-10. Monomorphic thicker-shelled specimens			
from deeper water,			
	×	50-70	
„ 11-16.— <i>Nubecularia divaricata</i> , Brady,	×	70	136
Figs. 11-14. Lateral aspect.			
Figs. 15, 16. Oral end of the test, showing the grooved			
tubular neck and everted lip.			
„ 17-19.— <i>Sagrina</i> (?) <i>tessellata</i> , n. sp., . . . . .	.		585
Figs. 17, 18. Lateral aspect; <i>b</i> , oral aspect,			
Fig. 19. Terminal segment more highly magnified,			
	×	75	
	×	150	
„ 20, 21.— <i>Sagrina</i> (?) <i>annulata</i> , n. sp., . . . . .	.		586
Fig. 20. Lateral aspect; <i>b</i> , oral aspect,			
Fig. 21. Terminal segment more highly magnified,			
	×	60	
		100	
„ 22-28.— <i>Ramulina globulifera</i> , Brady,	×	35	587

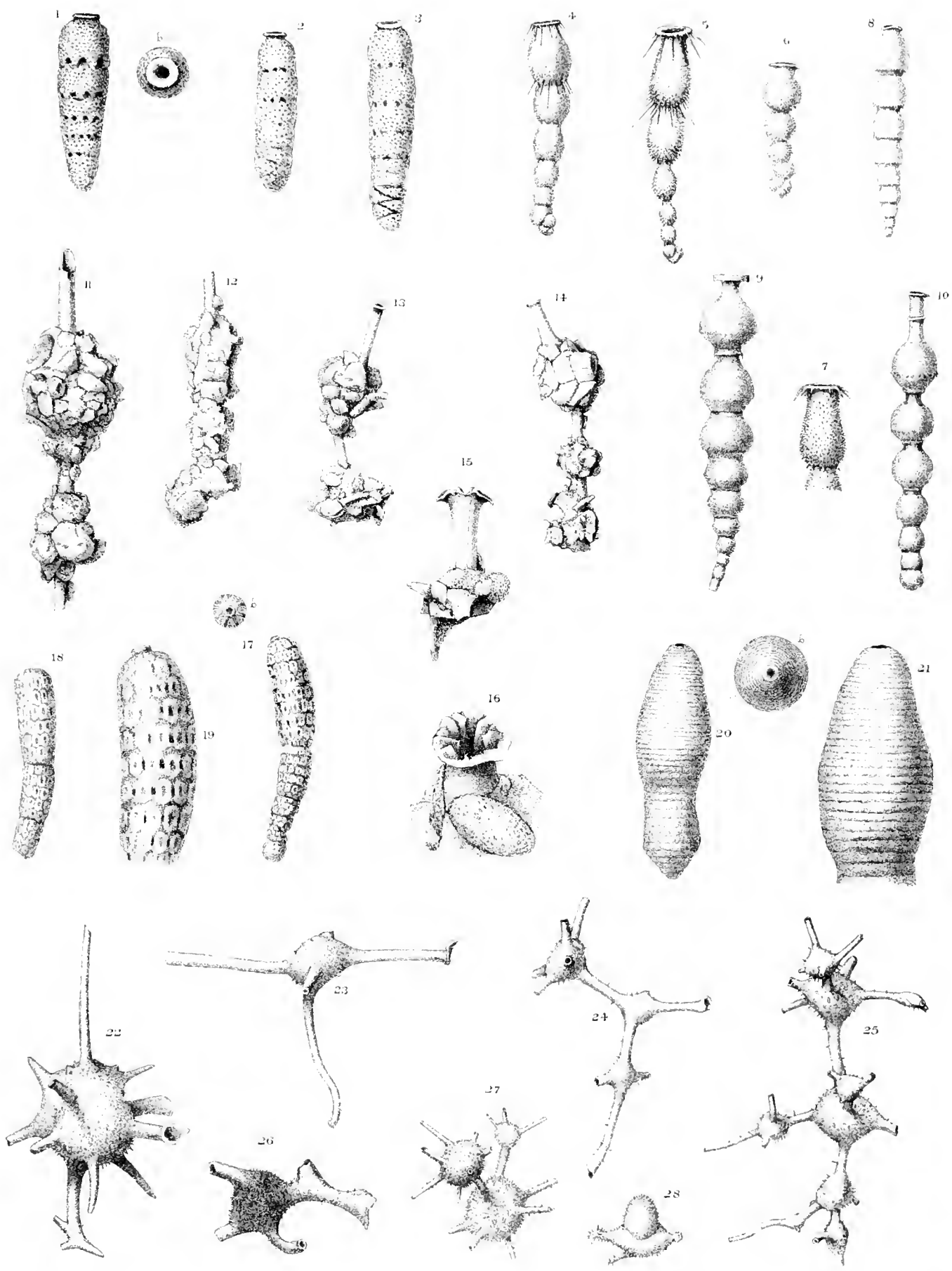
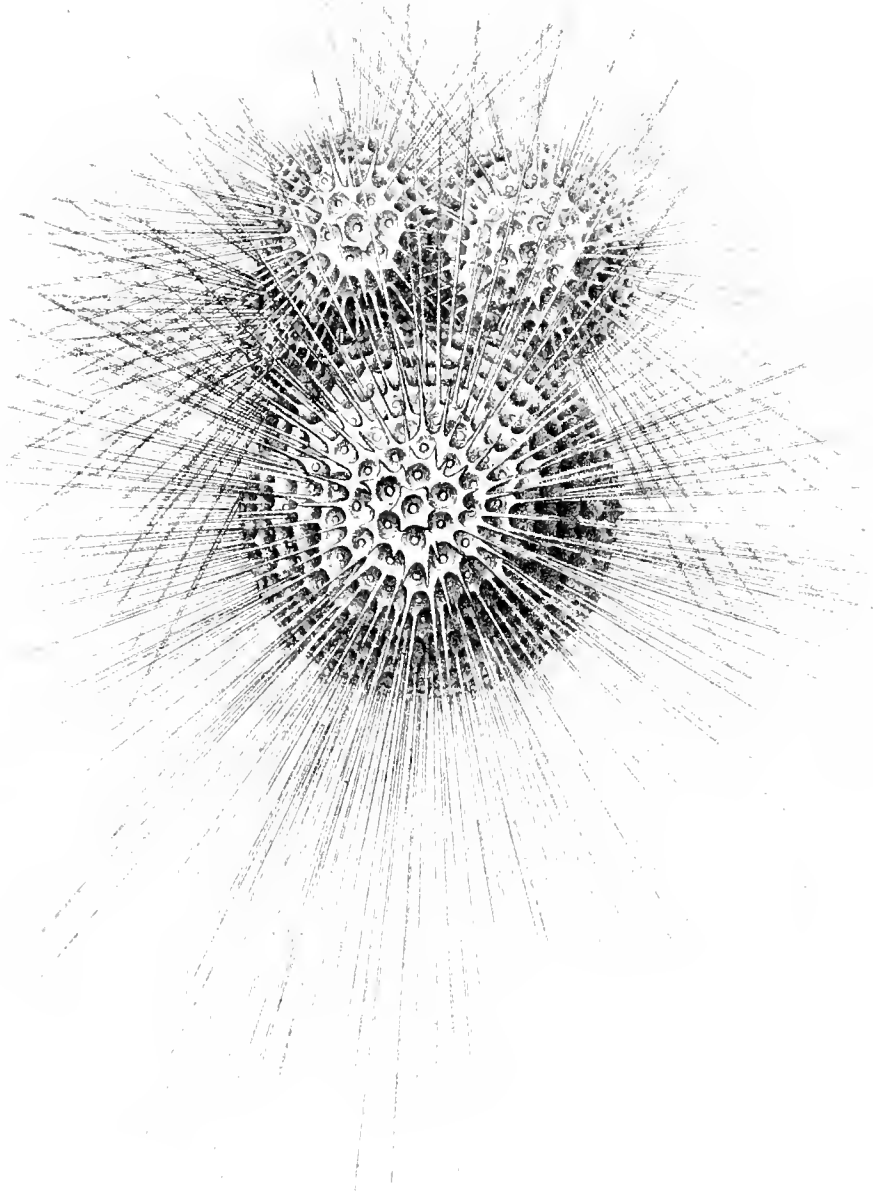


PLATE LXXVII.

PLATE LXXVII.

GLOBIGERINA.

	Diam.	Page
<i>Globigerina bulloides</i> , d'Orbigny,	× 200	593
Surface specimen, immediately after being taken from the sea; drawn by Mr. Wild .		



GLOBIGERINA

PLATE LXXVIII.

PLATE LXXVIII.

ORBULINA.

	Diam.	Page
<i>Orbulina univcrsa</i> , d'Orbigny,	× 40	608
Surface specimen, immediately after being taken from the sea; drawn by Mr. Will.		

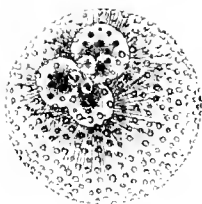


PLATE LXXIX.

PLATE LXXIX.

GLOBIGERINA.

a, Superior aspect; *b*, inferior aspect; *c*, peripheral aspect.

		Diam.	Page
Figures 1-7.—	<i>Globigerina bulloides</i> , d'Orbigny,	× 50	593
	Figs. 1, 2. Var. <i>triloba</i> , Reuss; spinous pelagic specimens, . . . . .	.	595
	Figs. 3, 4. Typical form; non-spinous pelagic specimens, . . . . .	.	593
	Figs. 5-7. Typical form, bottom specimens; fig. 5, young example; fig. 6, adult specimen of the starved form common on the British coast; fig. 7, adult typical shell. . . . .	.	593
„ 8-10.—	<i>Globigerina inflata</i> , d'Orbigny,	× 50	601
	Figs. 8, 9. Bottom specimens.		
	Fig. 10. Pelagic specimen.		
„ 11-16.—	<i>Globigerina rubra</i> , d'Orbigny,	× 50	602
	Figs. 11-15. Bottom specimens: figs. 11, 12, superior aspect, showing supplementary apertures; fig. 13, inferior aspect; fig. 14, peripheral aspect.		
	Fig. 16. Young, spinous, pelagic specimen.		
„ 17.—	<i>Globigerina dubia</i> , Egger,	× 50	595
	Bottom specimen.		

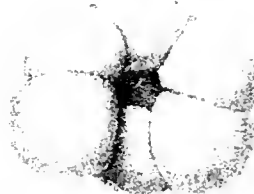
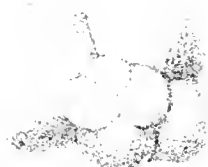
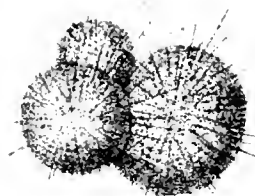
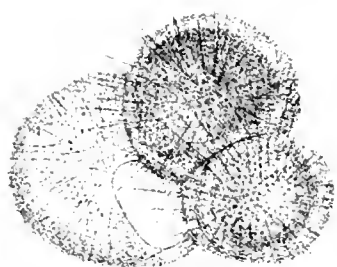


PLATE LXXX.

PLATE LXXX.

GLOBIGERINA.

		Diam.	Page
Figures 1-5.— <i>Globigerina conglobata</i> , Brady,	×	50	603
Figs. 1-3. Bottom specimens; figs. 1, 2, superior aspect, showing supplementary apertures; fig. 3, inferior aspect.			
Fig. 4. Spinous pelagic specimen.			
Fig. 5. Section of the shell, showing its thickness, and the coarse tubulation of the walls.			
„ 6-10.— <i>Globigerina digitata</i> , Brady,	×	50	599
Bottom specimens: figs. 6, 8, superior aspect; figs. 7, 9, inferior aspect; fig. 10, peripheral aspect.			
„ 11-17.— <i>Globigerina sacculifera</i> , Brady,	×	50	604
Figs. 11-14. Bottom specimens; figs. 11-13, superior aspect; fig. 14, inferior aspect.			
Figs. 15, 16. Small pelagic specimens, in the spinous condition.			
Fig. 17. Section of the shell, showing its thickness and the coarse tubulation of the walls.			
„ 18-21.— <i>Globigerina aquilateralis</i> , Brady,	×	50	605
Figs. 18, 19. Bottom specimens; <i>a, a</i> , lateral aspect; <i>b, b</i> , peripheral aspect.			
Fig. 20. Surface specimen.			
Fig. 21. Section of the shell.			

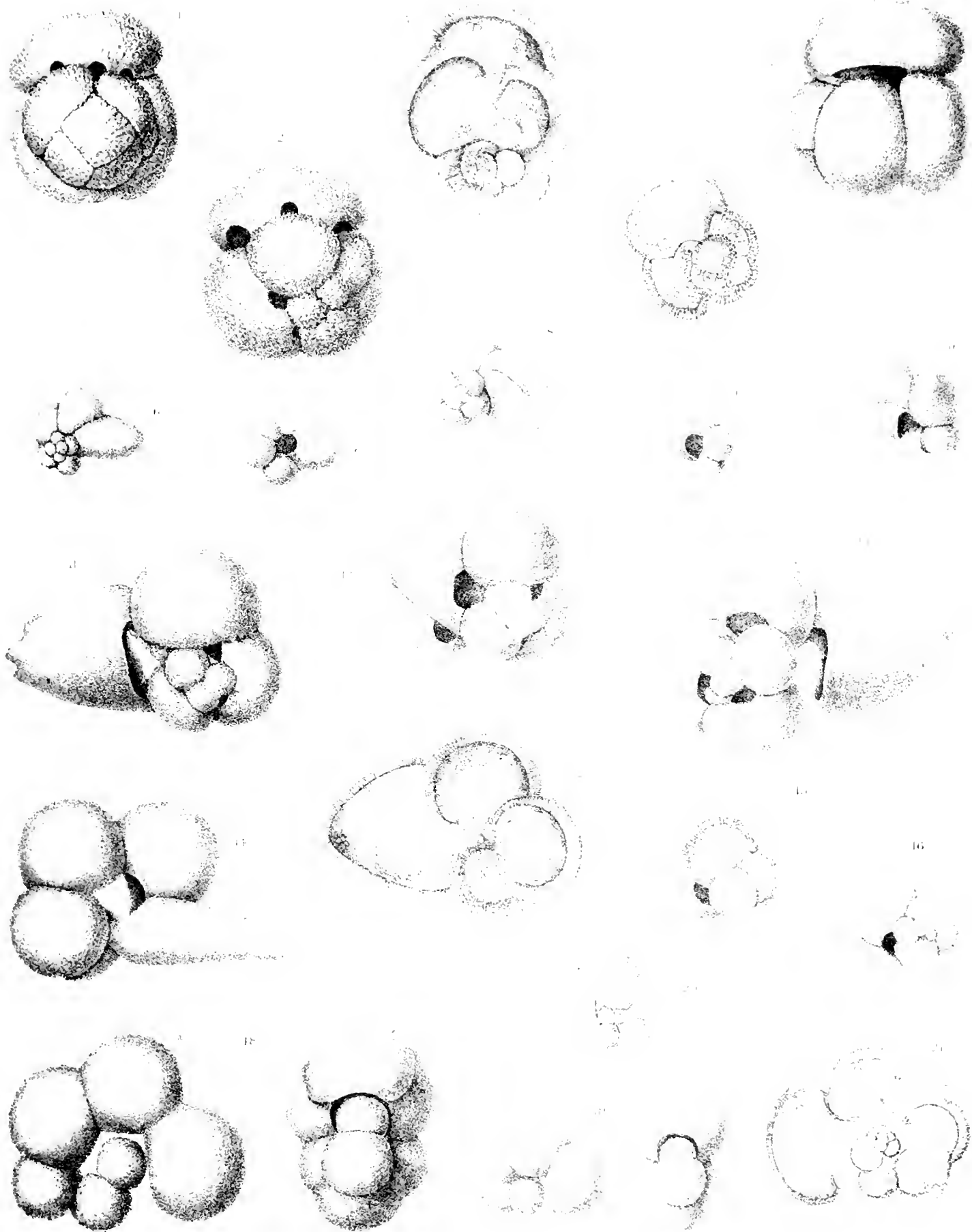
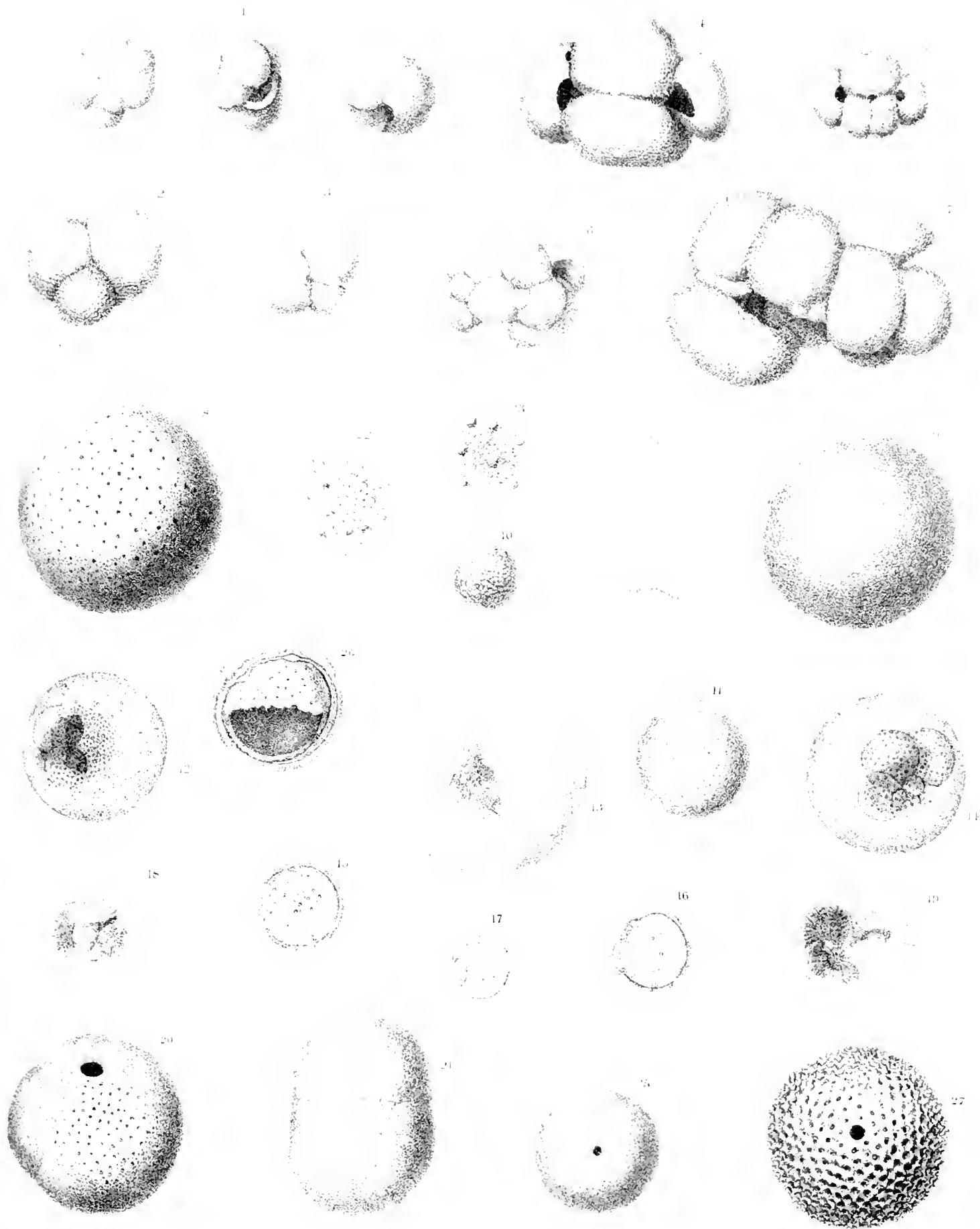


PLATE LXXXI.

PLATE LXXXI.

GLOBIGERINA.—ORBULINA.

		Diam.	Page
Figure 1.— <i>Globigerina dutertrei</i> , d'Orbigny,	×	50	601
Bottom specimen; <i>a</i> , superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 2, 3.— <i>Globigerina bulloides</i> , var. <i>triloba</i> , Reuss,	×	50	595
Bottom specimens.			
„ 4, 5.— <i>Globigerina helicina</i> , d'Orbigny,	×	50	605
Fig. 4. Inferior aspect; fig. 5, superior aspect.			
„ 6, 7.— <i>Globigerina</i> ,—wild-growing monstrous forms,	×	50	593
Bottom specimens.			
„ 8-26.— <i>Orbulina universa</i> , d'Orbigny,			608
Figs. 8-11. Bottom specimens; fig. 10, small dark-coloured variety common in shallow water on the British coast,	×	50	
Figs. 12-14. Surface specimens,	×	50	
Figs. 15-17. Small bottom specimens in which the Globigerine shell is not completely enveloped by the Orbuline chamber,	×	50	
Figs. 18, 19. Internal Globigerine shells partially filled with sarcode; from balsam-mounted specimens,	×	50	
Figs. 20, 21. Two-chambered specimens. Such forms constitute the <i>Globigerina bilobata</i> of d'Orbigny,	×	50	
Figs. 22, 23. Portions of the test more highly magnified; showing (22) the large and small perforations, and (23) a granular or tuberculate condition of the exterior, . . . . .	.	100	
Fig. 24. Portion of a spinous shell,	×	50	
Fig. 25. Bottom specimen with a general aperture (<i>h</i>); copied from Williamson,	×	50	
Fig. 26. Bottom specimen, showing the laminated condition of the walls,	×	50	
„ 27.— <i>Orbulina porosa</i> , Terquem,	×	50	611



GLOB. GERINA (Globorina) etc. etc.

PLATE LXXXII.

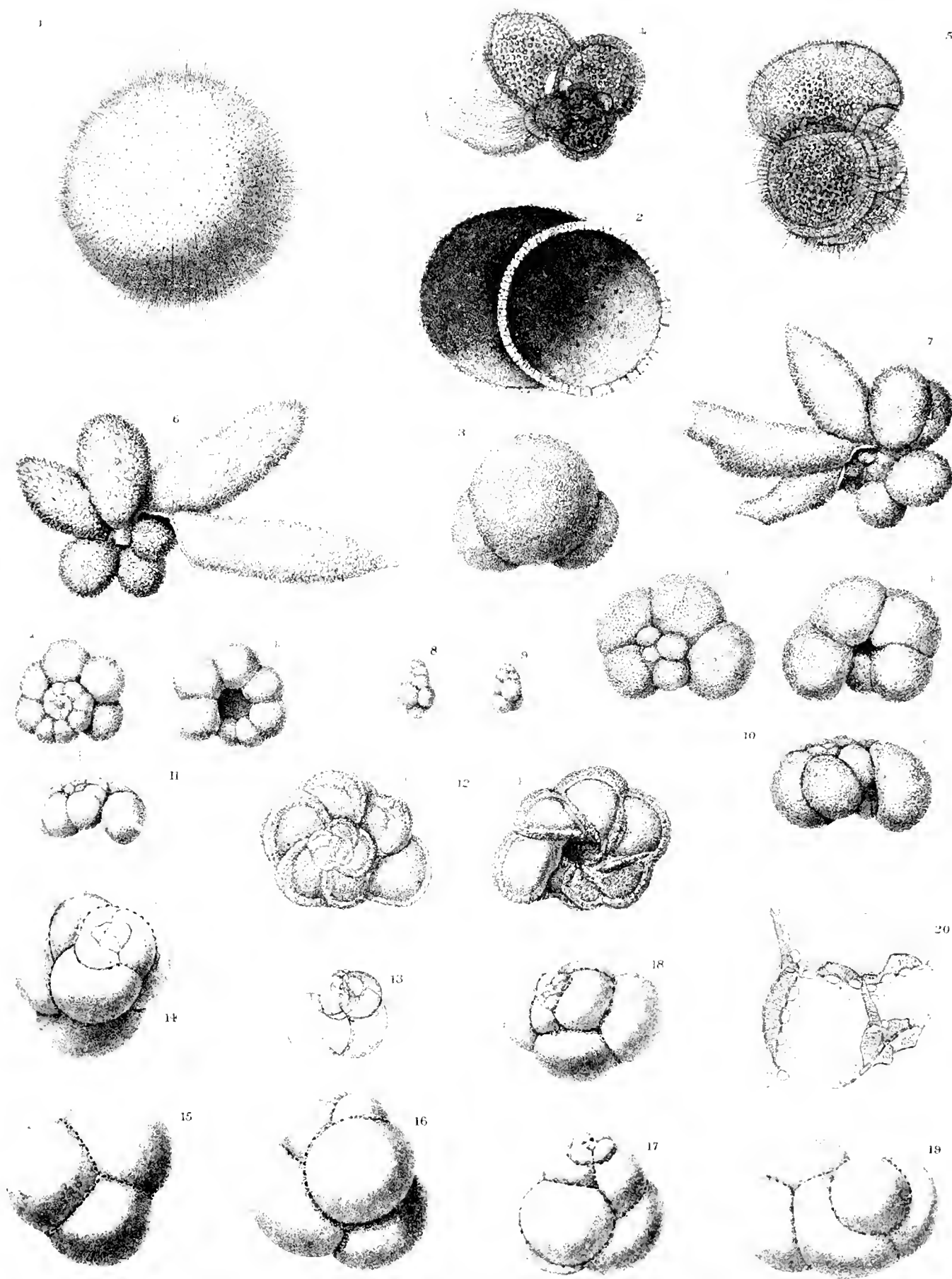
(ZOOLOGICAL CHALLENGER.—PART XXII.—1884.)—Y.

PLATE LXXXII.

GLOBIGERINA.—ORBULINA.—CANDEINA.

a, Superior aspect; *b*, inferior aspect; *c*, peripheral aspect.

			Diam.	Page
Figures 1-3.—	<i>Orbulina universa</i> , d'Orbigny,	×	50	608
	Fig. 1. Spinous pelagic specimen.			
	Fig. 2. Two-chambered shell laid open.			
	Fig. 3. Specimen with two supplementary chambers.			
„	4.— <i>Globigerina sacculifera</i> , Brady,	×	50	604
	Adult pelagic specimen.			
„	5.— <i>Globigerina conglobata</i> , Brady,	×	50	603
	Adult pelagic specimen.			
„	6, 7.— <i>Globigerina digitata</i> , Brady,	×	50	599
	Large bottom specimens.			
„	8, 9.— <i>Globigerina</i> , sp.,	×	50	603
	Minute <i>Globigerinae</i> ; general contour resembling that of <i>Globigerina acuta</i> , d'Orbigny, and <i>Globigerina trochoides</i> , Reuss.			
„	10.— <i>Globigerina (cretacea)</i> , d'Orbigny?,	×	50	596
	Bottom specimen.			
„	11.— <i>Globigerina cretacea</i> , d'Orbigny,	×	50	596
	Fossil specimen.			
„	12.— <i>Globigerina linxiana</i> , d'Orbigny, sp.,	×	50	598
	Fossil specimen.			
„	13-20.— <i>Candeina nitida</i> , d'Orbigny,			622
	Fig. 13. Pelagic specimen,	×	50	
	Figs. 14-18. Bottom specimens; figs. 14, 18, superior aspect; fig. 15, inferior aspect; figs. 16, 17, peripheral aspect,	×	50	
	Fig. 19. Monstrous specimen,	×	50	
	Fig. 20. Portion of the shell more highly magnified, showing the sutural apertures and the minute perforation of the walls,	×	100	



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GLOBIGERINA. 1-10. LANDEINA. 11-20.

PLATE LXXXIII

PLATE LXXXIII.

HASTIGERINA.

	Diam.	Page
Figures 1-8.— <i>Hastigerina pelagica</i> , d'Orbigny, sp.,		613
Fig. 1. Living specimen; the spinous shell enveloped in a lobulated mass of sarcode, with pseudopodia extended. From a drawing by Mr. Wild,	×	43
Fig. 2. From a fresh specimen, drawn by Mr. Wild,	×	47
Figs. 3, 4. From specimens mounted in glycerine,	×	50
Figs. 5-8. Dead and empty shells, in the worn and broken condition in which they are usually found in bottom-dredgings.	×	50

PLATE LXXXIV.

PLATE LXXXIV.

SPHÆROIDINA.—PULLENIA.

		Diam.	Page
Figures 1-7.— <i>Sphæroidina bulloides</i> , d'Orbigny,	×	50	620
Figs. 1-4, 6, 7. Specimens of various forms, in different aspects.			
Fig. 5. Section of the shell, showing the laminated condition of the walls.			
„ 8-11.— <i>Sphæroidina dehiscens</i> , Parker and Jones,	×	50	621
Figs. 8, 9. Bottom specimens.			
Fig. 10. Surface specimen.			
Fig. 11. Section of the shell, showing the thickness of the walls and their coarse tubulation.			
„ 12, 13.— <i>Pullenia sphaeroides</i> , d'Orbigny, sp.,	×	50	615
<i>a, a</i> , Lateral aspect; <i>b, b</i> , peripheral aspect.			
„ 14, 15.— <i>Pullenia quinqueloba</i> , Reuss,	×	50	617
Figs. 14 <i>a</i> , 15. Lateral aspect; fig. 14 <i>b</i> , peripheral aspect.			
„ 16-20.— <i>Pullenia obliquiloculata</i> , Parker and Jones,	×	50	618
Figs. 16, 17. Bottom specimens. <i>a, a</i> , Lateral aspect <i>b, b</i> , peripheral aspect.			
Fig. 18. Surface specimen.			
Fig. 19. Monstrous example, isomorphous with <i>Globigerina helicina</i> .			
Fig. 20. Section of the shell, showing the thickness and tubulation of the walls, and the infolding of the superior margin of the septal apertures.			

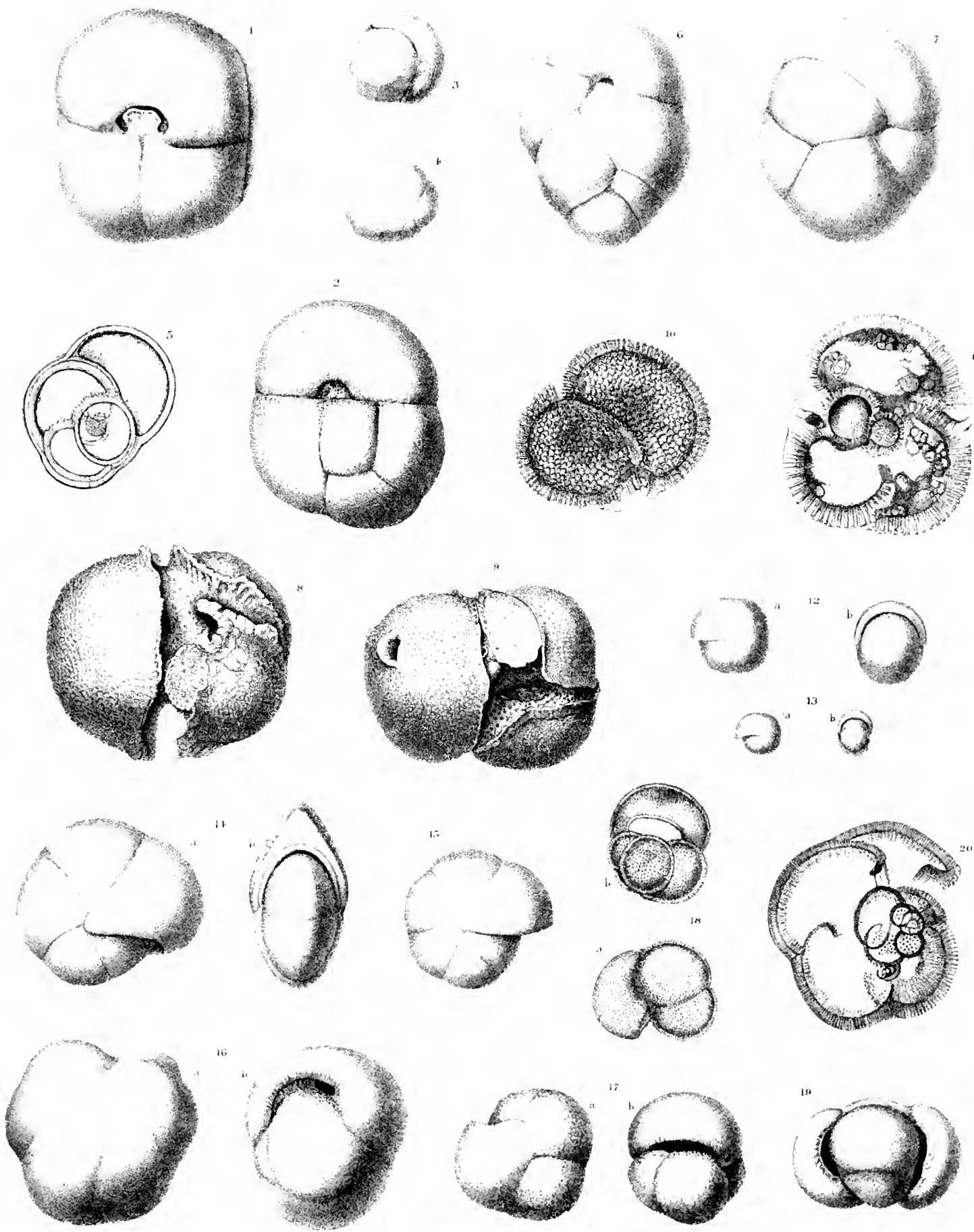


PLATE LXXXV.

PLATE LXXXV.

SPIRILLINA.

		Diam.	Page
Figures 1-5.— <i>Spirillina vivipara</i> , Ehrenberg,	×	100	630
Figs. 1, 2 <i>a</i> , 3-5. Lateral aspect; fig. 2 <i>b</i> , peripheral aspect.			
„ 6, 7.— <i>Spirillina obconica</i> , Brady,	×	120	630
Figs. 6 <i>a</i> , 7. Superior lateral aspect; fig. 6 <i>b</i> , inferior aspect; fig. 6 <i>c</i> , peripheral aspect.			
„ 8-11.— <i>Spirillina inaequalis</i> , Brady,	×	120	631
Fig. 8. Superior aspect; fig. 9, inferior aspect; figs. 10, 11, peripheral aspect.			
„ 12-16.— <i>Spirillina tuberculata</i> , Brady,			631
Fig. 12. Young specimen, lateral aspect,	×	50	
Figs. 13, 15. Adult specimens, lateral aspect,	×	50	
Fig. 14. Large example. The partially broken shell exposing a thread of nearly black dried sarcode,	×	45	
Fig. 16. Peripheral aspect,	×	45	
„ 17.— <i>Spirillina limbata</i> , var. <i>denticulata</i> , nov.,	×	50	632
Lateral aspect.			
„ 18-21.— <i>Spirillina limbata</i> , Brady,			632
Fig. 18. Lateral aspect; fig. 21, peripheral aspect,	×	60	
Fig. 19. Lateral aspect; fig. 20, peripheral aspect,	×	50	
„ 22-25.— <i>Spirillina decorata</i> , n. sp.,	×	50	633
Figs. 22-24. Lateral aspect; fig. 25, peripheral aspect.			

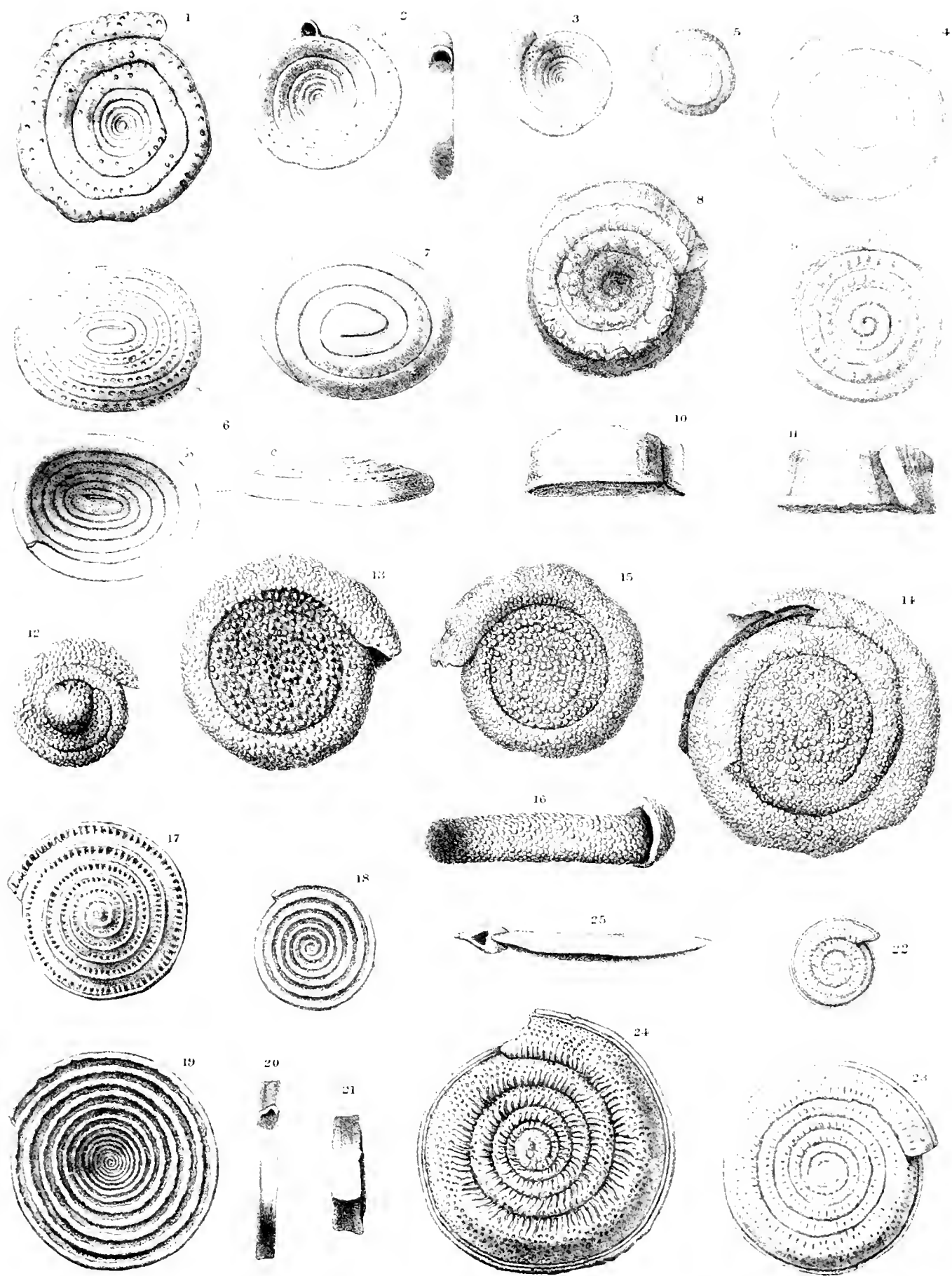
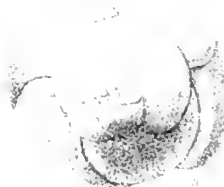
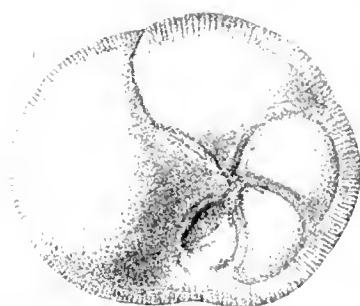
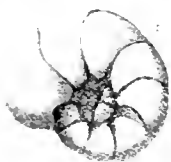
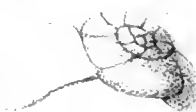
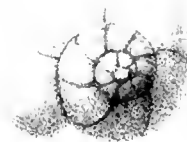
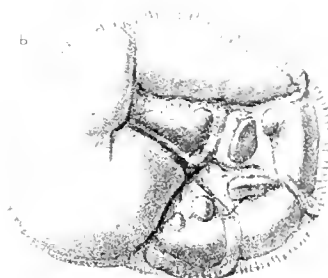
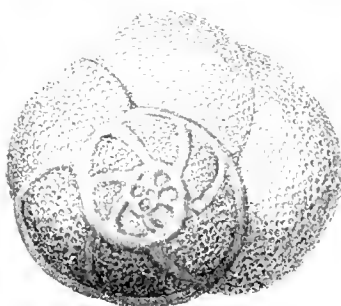
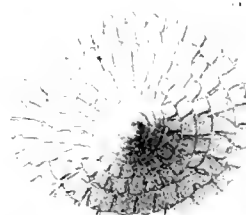
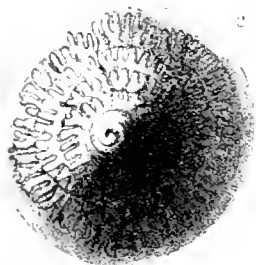
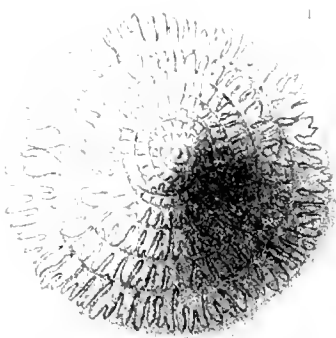


PLATE LXXXVI.

PLATE LXXXVI.

PATELLINA.—DISCORBINA.

		Diam.	Page
Figures 1-7.— <i>Patellina corrugata</i> , Williamson, . . . . .	.	.	634
Figs. 1-3. Superior aspect; figs. 4, 5, inferior aspect,	×	120	
Figs. 6, 7. Peripheral aspect (small specimens),	×	150	
„ 8, 13.— <i>Discorbina globularis</i> , d'Orbigny, sp., . . . . .	.	.	643
Fig. 8. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peri-			
pheral aspect,	×	75	
Fig. 13. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peri-			
pheral aspect,	×	50	
„ 9, 12.— <i>Discorbina vilardeboana</i> , d'Orbigny, sp.,	×	75	645
<i>a, a</i> , Superior aspect; <i>b, b</i> , inferior aspect; <i>c, c</i> , peri-			
pheral aspect.			
„ 10, 11.— <i>Discorbina araucana</i> , d'Orbigny, sp.,	×	75-90	645
<i>a, a</i> , Superior aspect; <i>b, b</i> , inferior aspect; <i>c, c</i> , peripheral			
aspect.			



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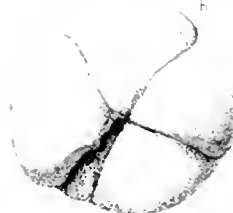
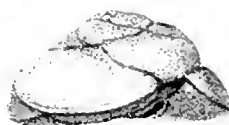
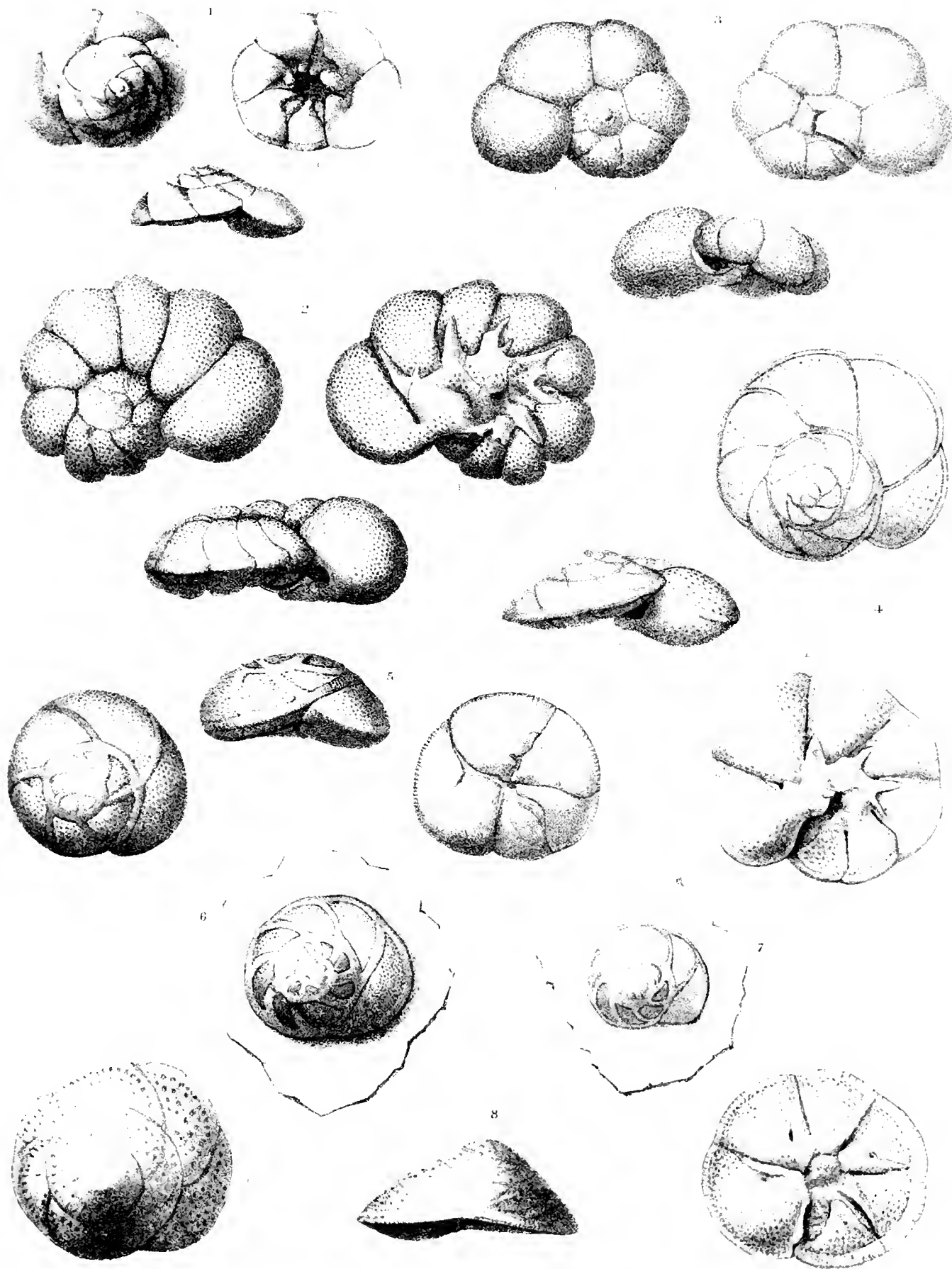


PLATE LXXXVII.

PLATE LXXXVII.

DISCORBINA.

			Diam.	Page
Figures 1, 4.—	<i>Discorbina rosacea</i> , d'Orbigny, sp.,	644
	Fig. 1. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect,	×	100	
	Fig. 4. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect,	×	50	
..	2.— <i>Discorbina vesicularis</i> , Lamarek, sp.,	×	35	651
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
..	3.— <i>Discorbina rugosa</i> , d'Orbigny, sp.,	×	60	652
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
..	5-7.— <i>Discorbina caliculata</i> , d'Orbigny, sp., . . . . .	.	.	644
	Fig. 5. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect,	×	75	
	Figs. 6, 7. Small adherent specimens,	×	100	
..	8.— <i>Discorbina turbo</i> , d'Orbigny, sp.,	×	60	642
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			



DISCORBINA

PLATE LXXXVIII.

(ZOOLOGICAL CHALLENGER, EXPEDITION, PART XXII, 1884.)—Y

PLATE LXXXVIII.

DISCORBINA.

		Diam.	Page
Figure	1.— <i>Discorbina isabelleana</i> , d'Orbigny, sp.,	× 100	646
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„	2.— <i>Discorbina vilardeboana</i> , d'Orbigny, sp.,	× 100	645
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„	3.— <i>Discorbina patelliformis</i> , n. sp.,	× 100	647
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„	4-8.— <i>Discorbina orbicularis</i> , Terquem, sp.,		647
	Figs. 4 <i>a</i> , 5 <i>a</i> , 6, 8 <i>a</i> . Superior aspect; figs. 4 <i>b</i> , 5 <i>b</i> , 7, 8 <i>b</i> , inferior aspect; figs. 4 <i>c</i> , 5 <i>c</i> , 8 <i>c</i> , peripheral aspect.		
	Fig. 4, × 90 diam.; fig. 5, × 100 diam.; fig. 6, × 50 diam.; fig. 7, × 75 diam.; fig. 8, × 60 diam.		
„	9.— <i>Discorbina eximia</i> , Hantken,	× 50	646
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect.		
„	10.— <i>Discorbina pulvinata</i> , n. sp.,	× 100	650
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect.		

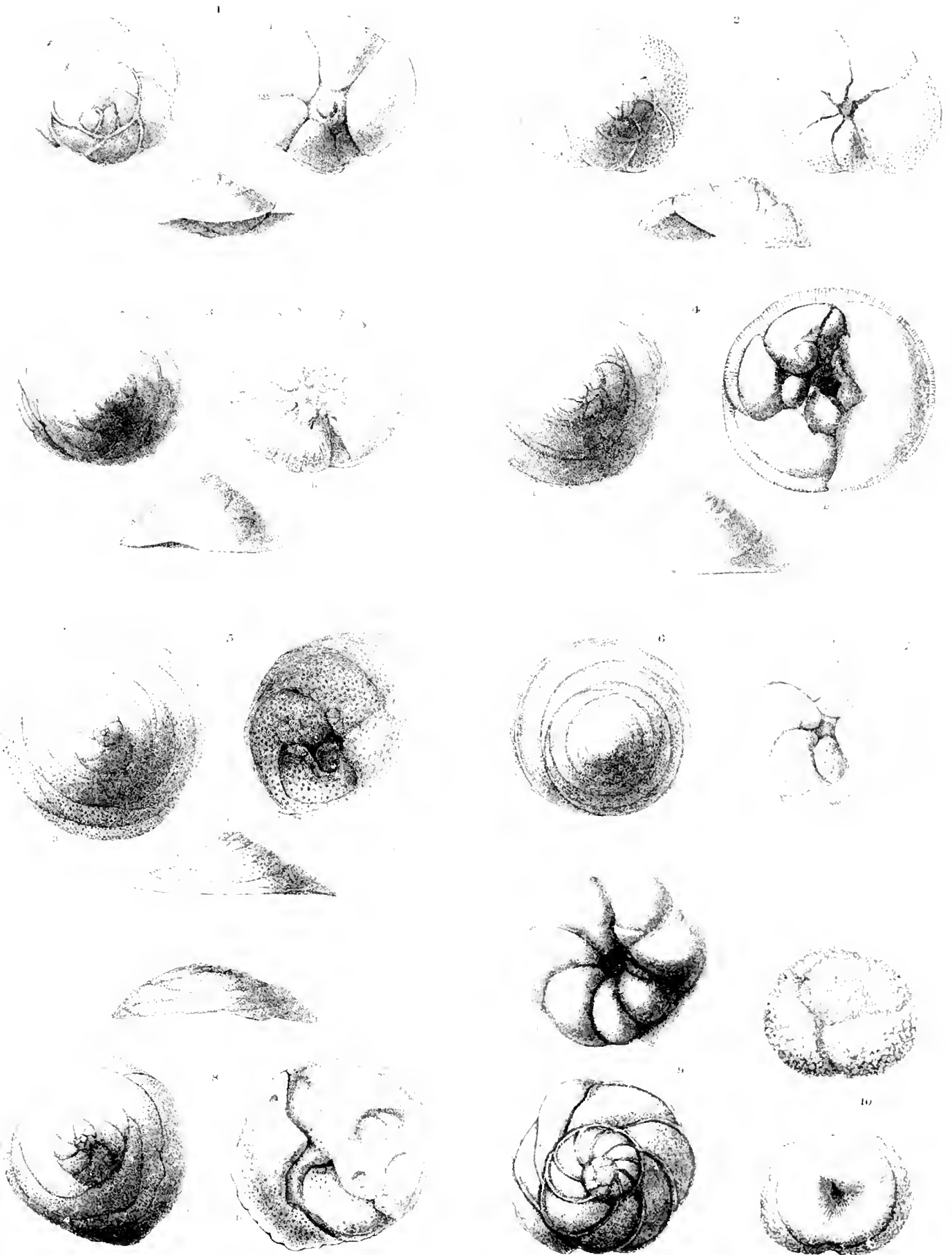


PLATE LXXXIX.

PLATE LXXXIX.

DISCORBINA.

			Diam.	Page
Figure	1.— <i>Discorbina patelliformis</i> , n. sp.,	×	100	647
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	2-4.— <i>Discorbina pileolus</i> , d'Orbigny, sp.,	×	100	649
	Figs. 2 <i>a</i> , 3. Superior aspect; fig. 2 <i>b</i> , inferior aspect; figs. 2 <i>c</i> , 4, peripheral aspect.			
	Fig. 2, 4. Double specimens.			
„	5-7.— <i>Discorbina tabernacularis</i> , Brady,	×	100	648
	Figs. 5 <i>a</i> , 7 <i>a</i> . Superior aspect; figs. 5 <i>b</i> , 7 <i>b</i> , inferior aspect; figs. 5 <i>c</i> , 7 <i>c</i> , peripheral aspect.			
	Fig. 6. Double specimen.			
„	8, 9.— <i>Discorbina opercularis</i> , d'Orbigny, sp.,	×	100	650
	Figs. 8 <i>a</i> , 9. Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , <i>d</i> , peripheral aspect.			
„	10-12.— <i>Discorbina bertheloti</i> , d'Orbigny, sp.,			650
	Fig. 10 <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect,	×	90	
	Fig. 11. Superior aspect,	×	60	
	Fig. 12. Inferior aspect,	×	100	

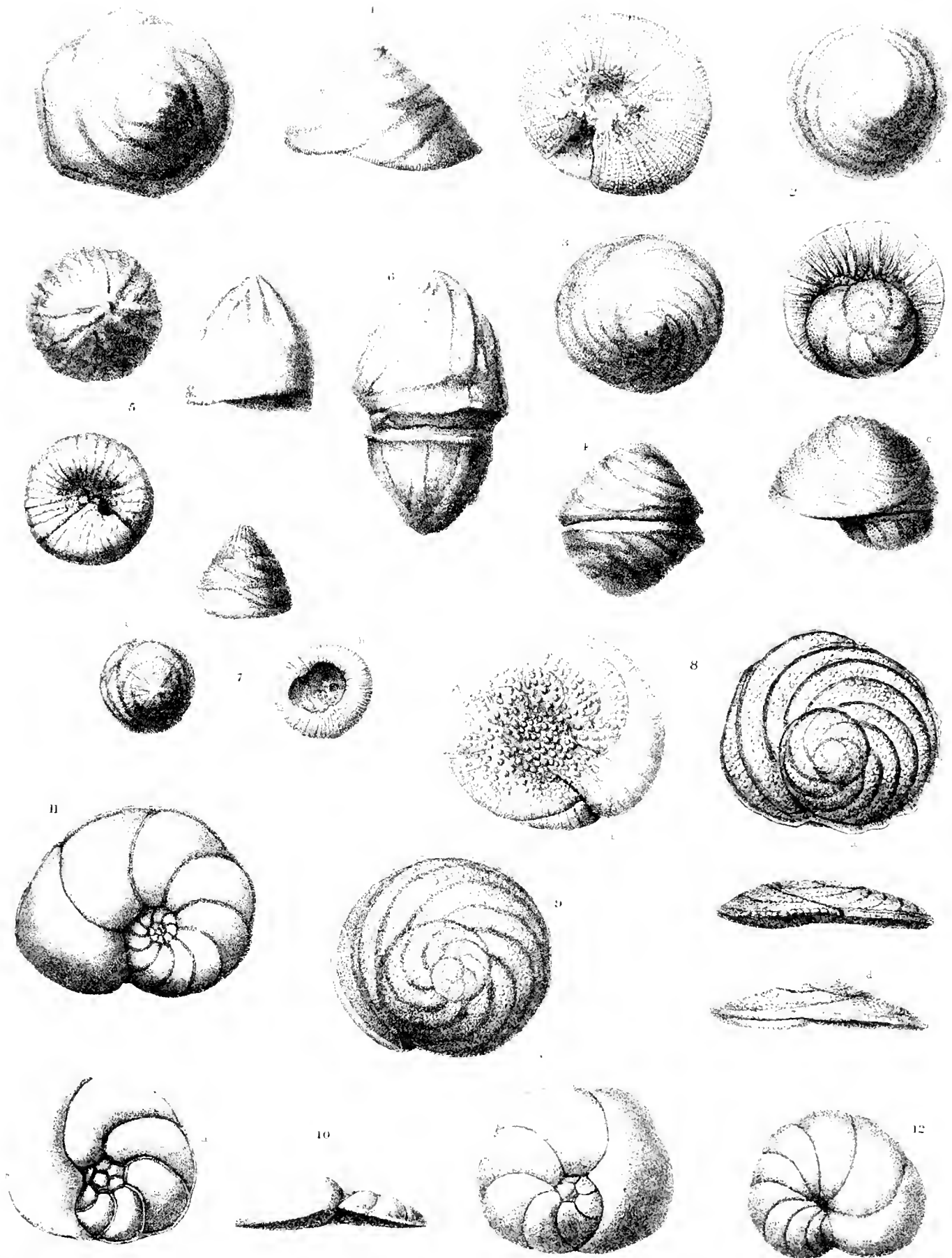
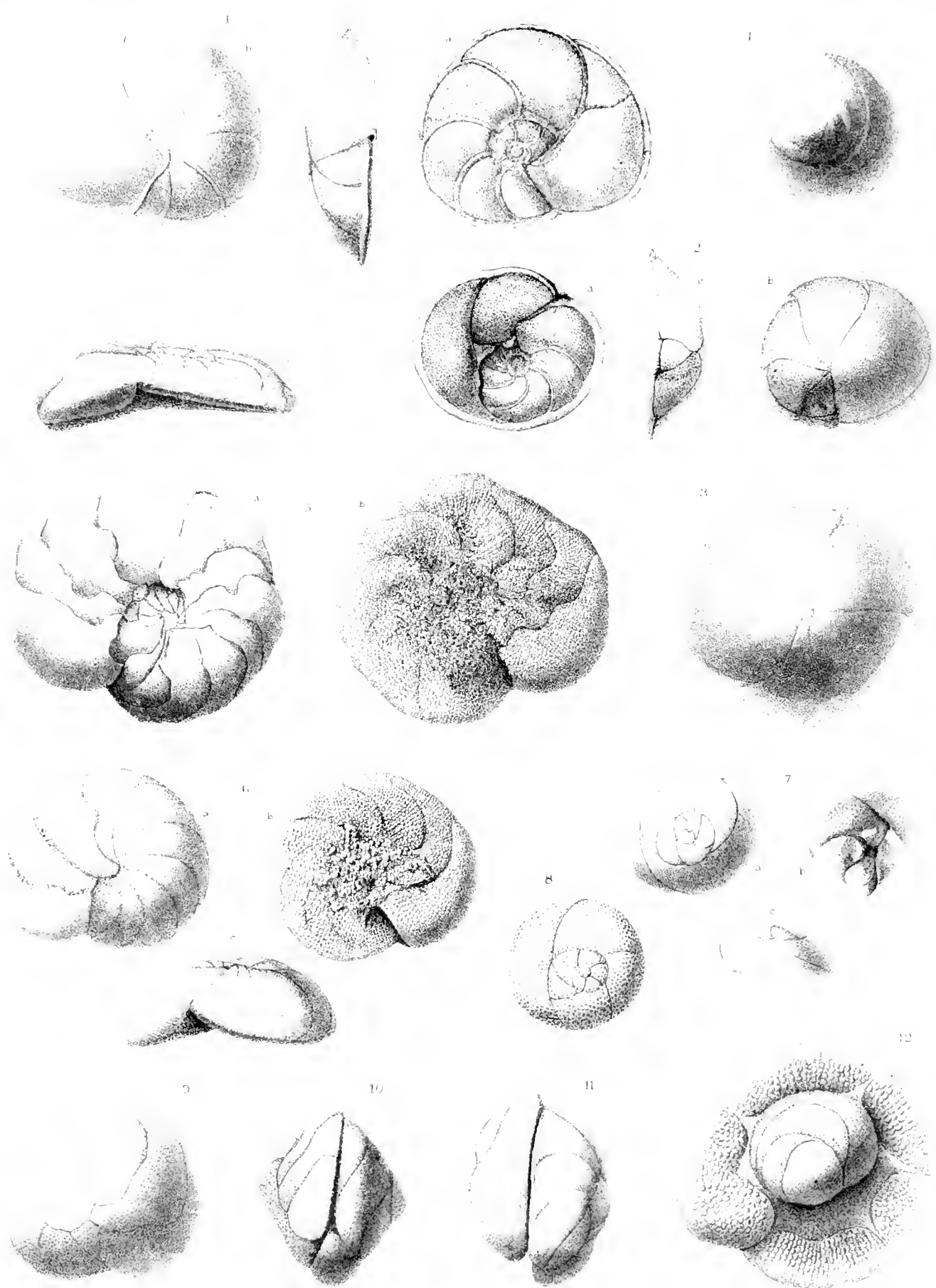


PLATE XC.

PLATE XC.

DISCORBINA.

		Diam.	Page
Figure	1.— <i>Discorbina bertheloti</i> , var. <i>baconica</i> , Hantken, var., <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.	× 75	651
,, 2, 3.	— <i>Discorbina rarensens</i> , Fig. 2 <i>a</i> . Superior aspect; figs. 2 <i>b</i> , 3, inferior aspect; fig. 2 <i>c</i> , peripheral aspect.	× 75	651
, 4.	— <i>Discorbina</i> ,—carinate form possibly related to the last-named species,	× 100	651
,, 5, 6, 9-12.	— <i>Discorbina parisiensis</i> , d'Orbigny, sp., Figs. 5 <i>a</i> , 6 <i>a</i> , 9, Superior aspect; figs. 5 <i>b</i> , 6 <i>b</i> , inferior aspect; figs. 5 <i>c</i> , 6 <i>c</i> , peripheral aspect. Figs. 10-12, Double specimens. Figs. 5, 6, × 40 diam.; figs. 9, 12, × 90 diam.; figs. 10, 11, . . . . .	. × 100	648
,, 7, 8.	— <i>Discorbina concinna</i> , n. sp., Figs. 7 <i>a</i> , 8. Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peri- pheral aspect.	× 100	646



DISCORBINA.

PLATE XCI.

PLATE XCI.

DISCORBINA.

		Diam.	Page
Figure 1.— <i>Discorbina polystomelloides</i> , Parker and Jones, .	×	30	652
<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 2, 3.— <i>Discorbina biconcava</i> , Parker and Jones, .	×	60	653
Figs. 2 <i>a</i> , 3 <i>b</i> , Superior aspect; figs. 2 <i>b</i> , 3 <i>a</i> , inferior aspect; 2 <i>c</i> , 3 <i>c</i> , peripheral aspect.			
„ 4.— <i>Discorbina rugosa</i> , d'Orbigny, sp., .	×	90	652
<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 5, 8.— <i>Discorbina allomorphinoides</i> , Reuss, sp., .	.		654
Fig. 5. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect, .	×	100	
Fig. 8. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect, .	×	50	
„ 6.— <i>Discorbina saulcii</i> , d'Orbigny, sp., .	×	50	653
<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 7.— <i>Discorbina ventricosa</i> , n. sp., .	×	50	654
<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 9.— <i>Discorbina obtusa</i> (?), d'Orbigny, sp., .	×	50	644
<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			

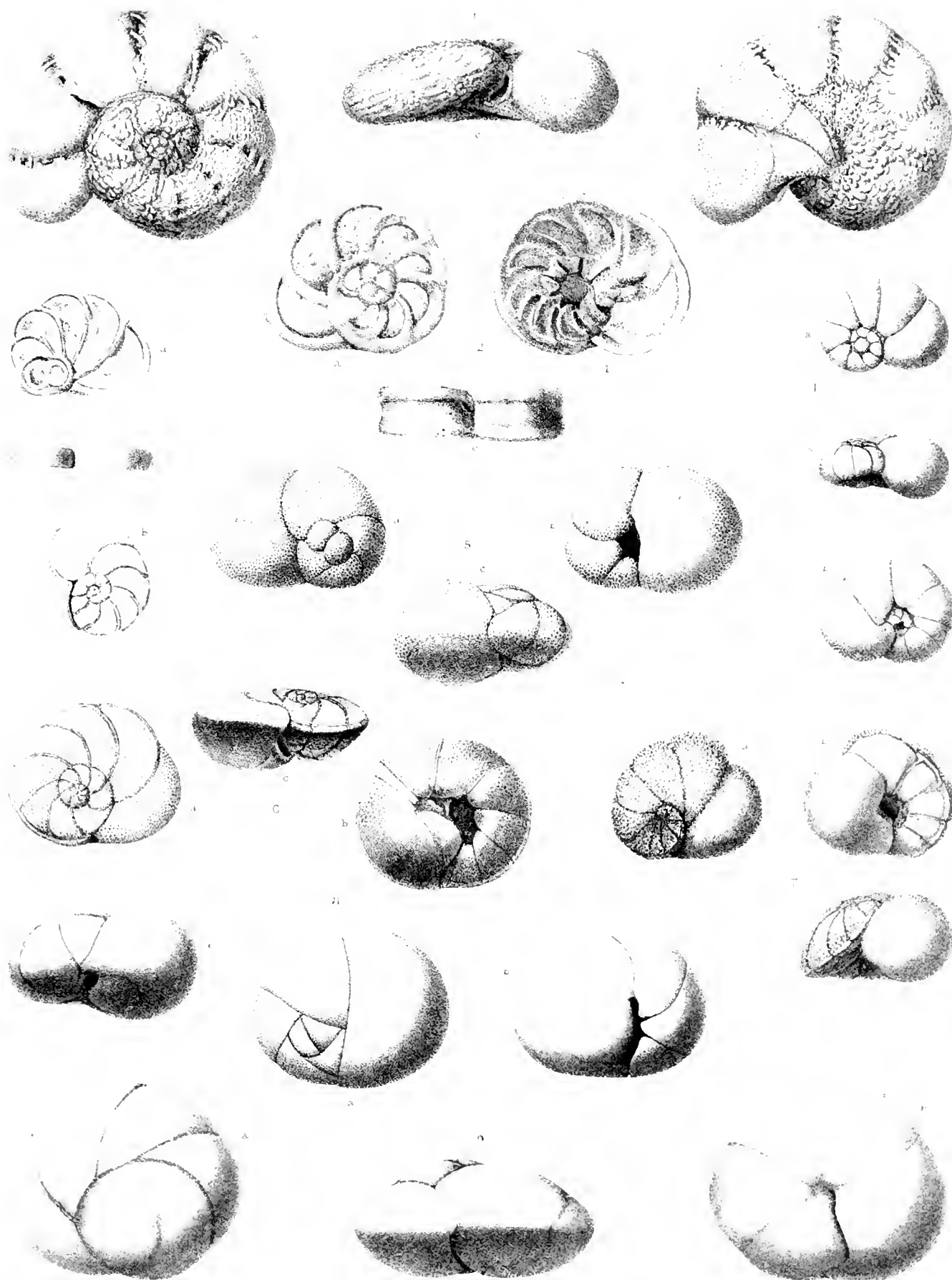


PLATE XCII.

PLATE XCII.

PLANORBULINA.—TRUNCATULINA.

		Diam.	Page
Figures 1-3.—	<i>Planorbulina mediterraneensis</i> , d'Orbigny, .	×	35-45
	Fig. 2 <i>a</i> , Superior (attached) lateral aspect; figs. 1, 2 <i>b</i> , 3, inferior (free) aspect; fig. 2 <i>c</i> , peripheral aspect.		656
.. 4.—	<i>Planorbulina acerralis</i> , n. sp., .	×	35
			657
.. 5, 6.—	<i>Planorbulina largata</i> , Parker and Jones, .	×	35
	Fig. 5. Adherent specimen. Fig. 6. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		658
.. 7-9.—	<i>Truncatulina refulgens</i> , Montfort, sp., .	×	30
	Figs. 7, 8. <i>a, a</i> , Superior aspect; <i>b, b</i> , inferior aspect; <i>c, c</i> , peripheral aspect. Fig. 9. Monstrous specimen.		659
.. 10.—	<i>Truncatulina lobatula</i> , Walker and Jacob, sp., .	×	60
	Small adherent specimen.		660

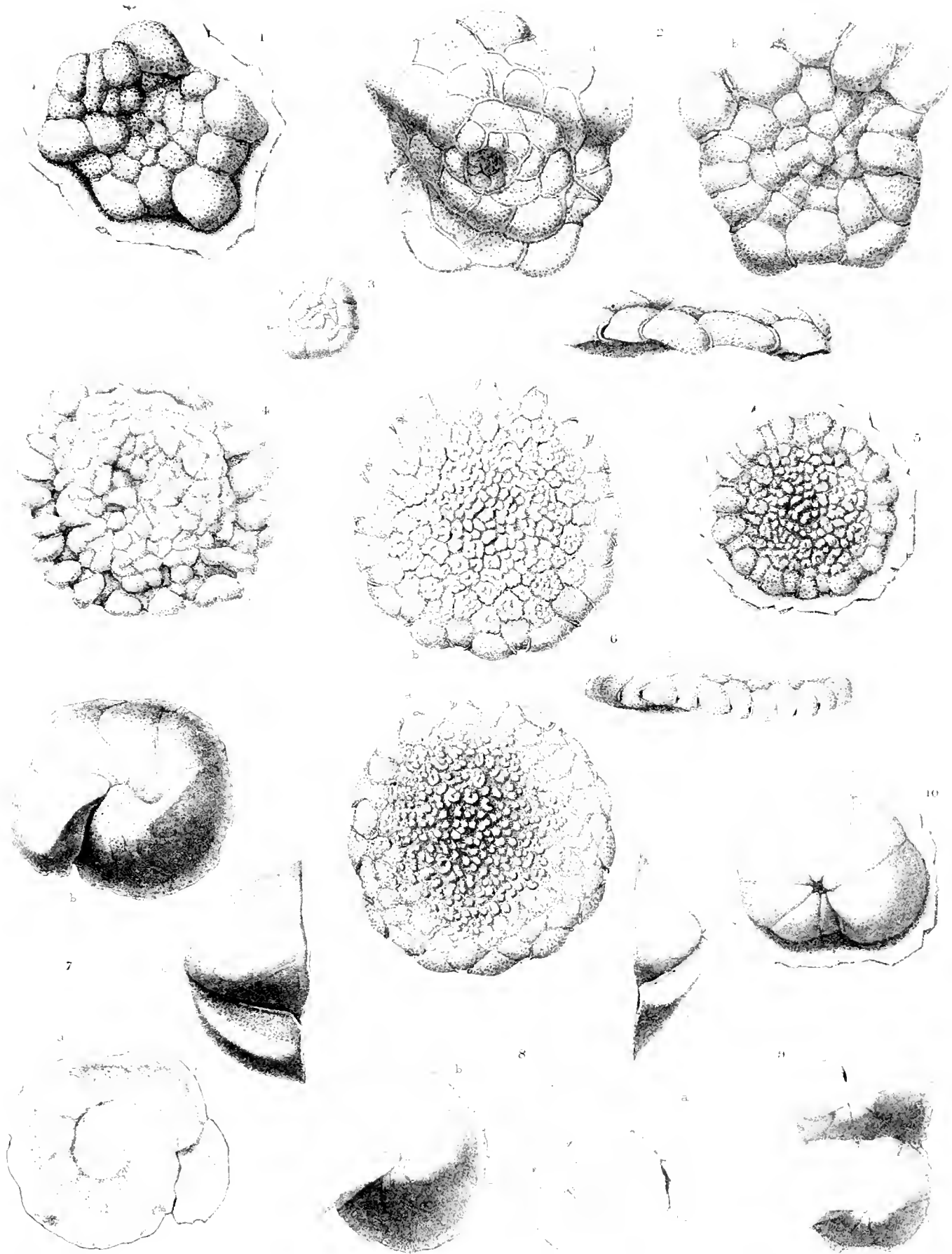
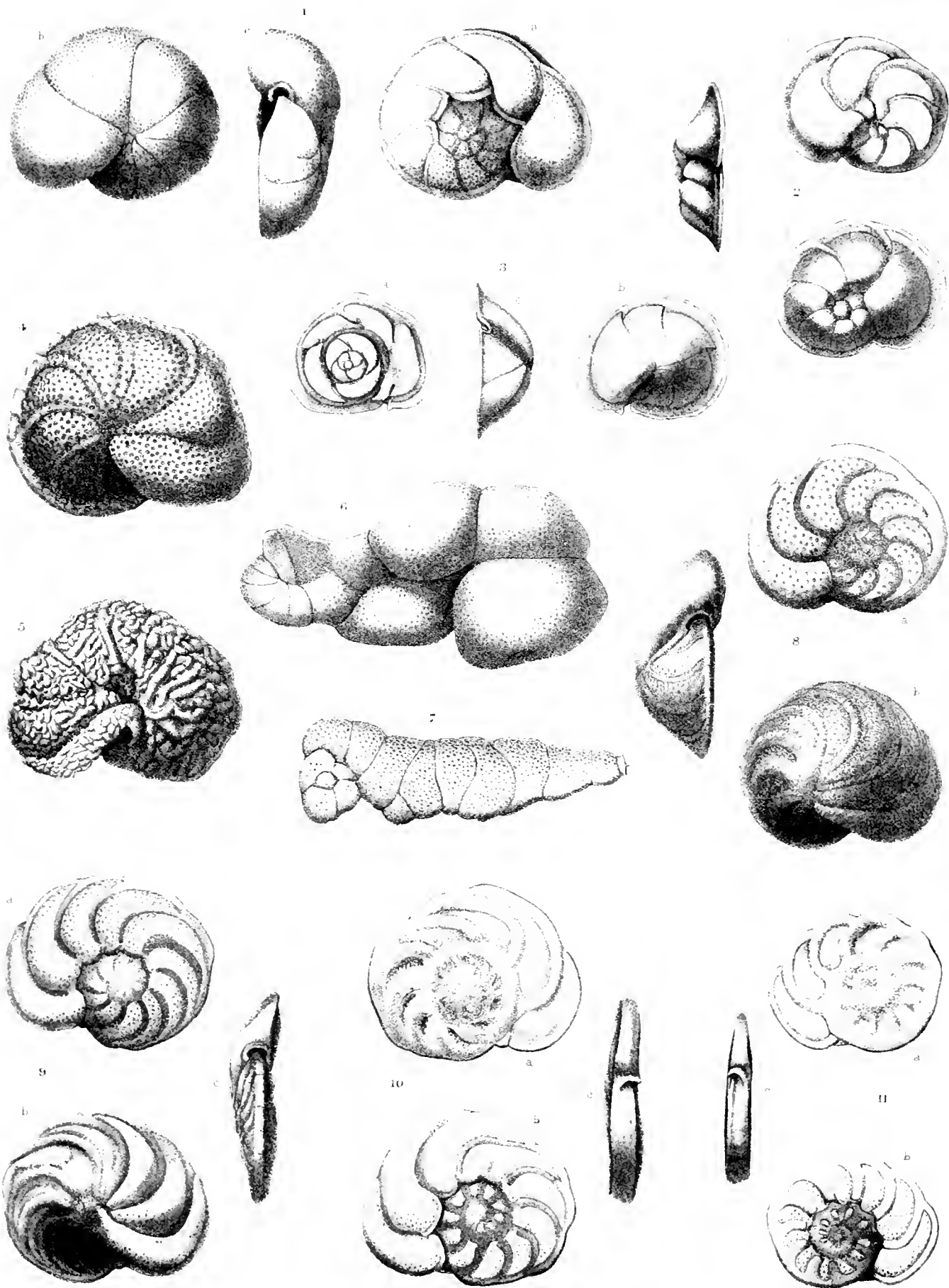


PLATE XCIII.

PLATE XCIII.

TRUNCATULINA.—ANOMALINA.

		Diam.	Page
Figures 1, 4, 5.—	<i>Truncatulina lobatula</i> , Walker and Jacob, sp., .	.	660
	Fig. 1. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect,	×	60
	Figs. 4, 5. Old thick-shelled specimens; inferior aspect,	×	40
„ 2, 3.—	<i>Truncatulina tenuimargo</i> , n. sp.,	×	60–100 662
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.		
„ 6, 7.—	<i>Truncatulina variabilis</i> , d'Orbigny,	×	50 661
„ 8, 9.—	<i>Truncatulina ruellerstorfi</i> , Schwager, sp.,	×	50–60 662
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.		
„ 10, 11.—	<i>Anomalina ariminensis</i> , d'Orbigny, sp.,	×	55–60 674
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.		



PLANORBULINA truncatula

Hannart 1897

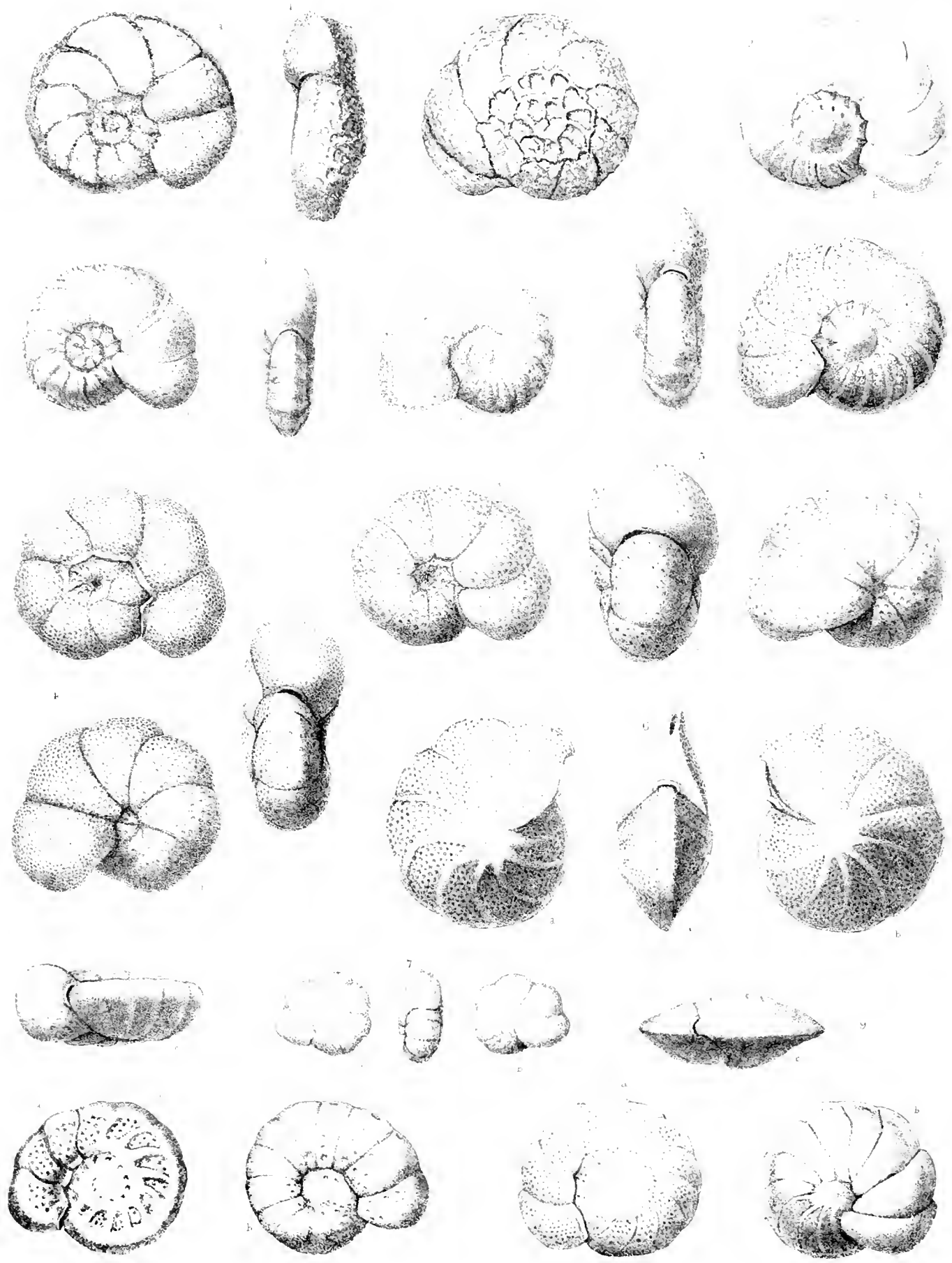
St. Hollis and Nat. 1897 et 1898

PLATE XCIV.

PLATE XCIV.

TRUNCATULINA.—ANOMALINA.

			Diam.	Page
Figure	1.— <i>Anomalina foveolata</i> , n. sp.,	×	60	674
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	2, 3.— <i>Anomalina ammonoides</i> , Reuss, sp., . . . . .	.		672
	Fig. 2, × 55 diam.;—fig. 3,	×	90	
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.			
„	4, 5.— <i>Anomalina grosserugosa</i> , Gümbel, sp.,	×	40–45	673
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.			
„	6.— <i>Truncatulina rostrata</i> , Brady,	×	50	668
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	7.— <i>Truncatulina humilis</i> , n. sp.,	×	100	665
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	8.— <i>Truncatulina akneriana</i> , d'Orbigny, sp.,	×	45	663
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	9.— <i>Truncatulina ungeriana</i> , d'Orbigny, sp.,	×	35	664
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			



After Holger et al. 1971

PLANORBULINA Truncatulina Anomalinia

Harshorn

PLATE XCV.

PLATE XCV.

TRUNCATULINA.

		Diam.		Page
Figures	1-3.— <i>Truncatulina praeincta</i> , Karrer, sp.,			667
	Figs. 1. 2. <i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect,	×	30	
	Fig. 3. Young specimen,	×	35	
„	4.— <i>Truncatulina robertsoniana</i> , Brady,	×	50	664
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	5.— <i>Truncatulina dutemplei</i> , d'Orbigny, sp.,	×	60	665
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	6.— <i>Truncatulina</i> , sp., intermediate form near <i>Trun-</i> <i>catulina haidingerii</i> , d'Orbigny, sp.,	×	40	
„	7.— <i>Truncatulina haidingerii</i> , d'Orbigny, sp.,	×	30	663
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	8.— <i>Truncatulina tumidula</i> , n. sp.,	×	100	666
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c,d</i> , peripheral aspect.			
„	9. 10.— <i>Truncatulina pygmaea</i> , Hantken,	×	60	666
	Figs. 9 <i>a</i> , 10. Superior aspect; fig. 9 <i>b</i> , inferior aspect; fig. 9 <i>c</i> , peripheral aspect.			
„	11.— <i>Truncatulina tenera</i> , n. sp.,	×	75	665
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			

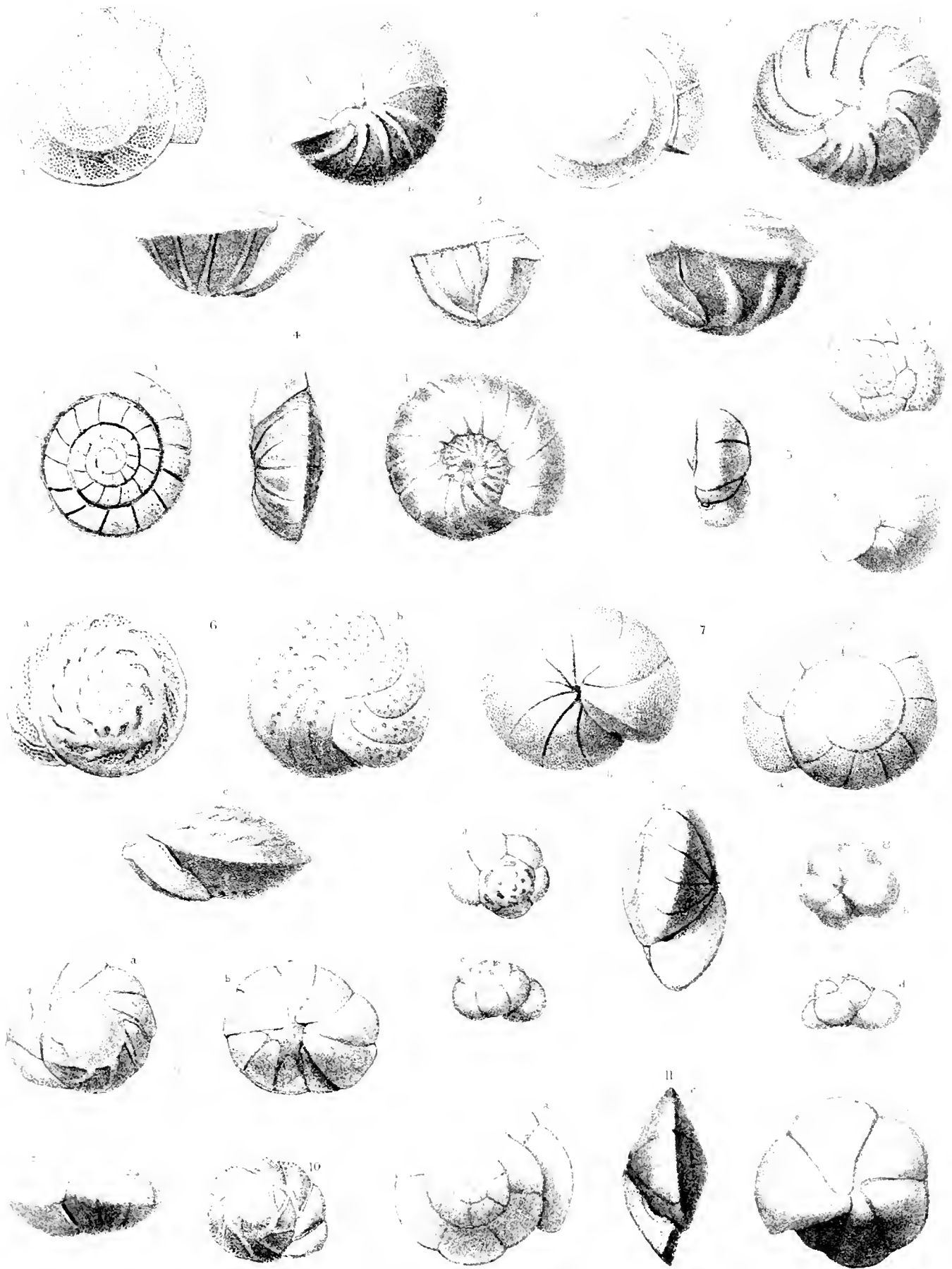


PLATE XCVI.

(ZOOLOGICAL CHALLENGER.—PART XXII.—1884.)—Y.

PLATE XCVI.

TRUNCATULINA.

			Diam.	Page
Figure	1.— <i>Truncatulina rosea</i> , d'Orbigny, sp.,	×	70	667
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	2.— <i>Truncatulina margaritifera</i> , Brady,	×	28	667
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	3.— <i>Truncatulina culter</i> , Parker and Jones, sp.,	×	90	668
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	4.— <i>Truncatulina soluta</i> , Brady,	×	100	670
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	5-8.— <i>Truncatulina reticulata</i> , Czjzek, sp.,			669
	Figs. 5-7, × 100 diam.;—fig. 8,	×	70	
	Figs. 5 <i>a</i> , 8 <i>a</i> . Superior aspect; figs. 5 <i>b</i> , 6, 7, 8 <i>b</i> , inferior aspect; figs. 5 <i>c</i> , 8 <i>c</i> , peripheral aspect.			
„	9-14.— <i>Truncatulina echinata</i> , Brady,	×	100	670
	Figs. 9-13. Specimens in various aspects.			
	Fig. 14. Transparent section of the test.			

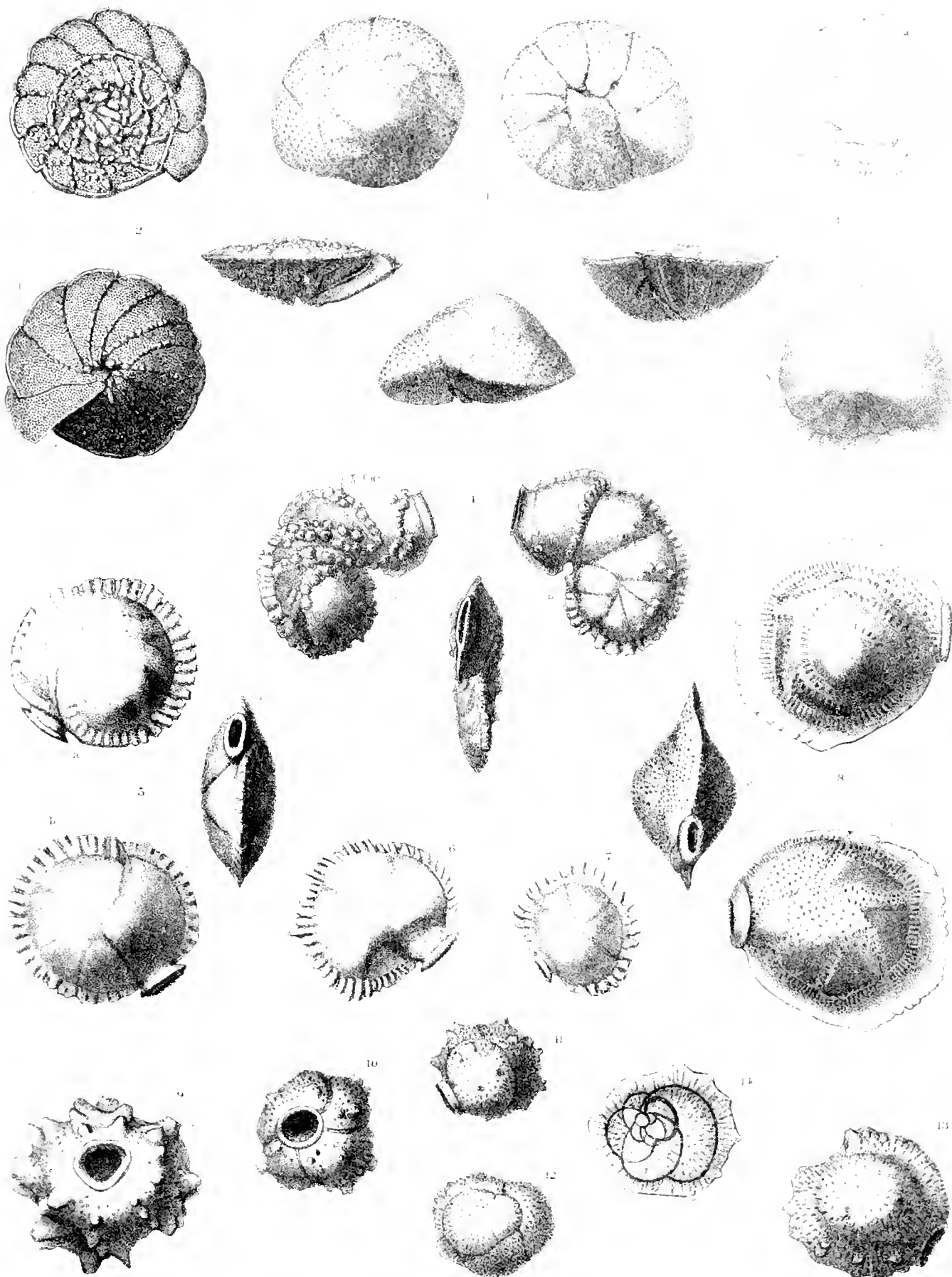


PLATE XCVII.

PLATE XCVII.

ANOMALINA.—CARPENTERIA.

			Diam.	Page
Figures 1, 2.—	<i>Anomalina coronata</i> , Parker and Jones, . . . . .	.		675
	Fig. 1. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect,	×	40	
	Fig. 2. Peripheral aspect,	×	50	
„ 3-6.—	<i>Anomalina polymorpha</i> , Costa,	×	35-45	676
	Figs. 3-5. Lateral aspects; fig. 6, peripheral aspect.			
„ 7.—	<i>Anomalina polymorpha</i> (?), Costa,	×	45	676
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 8-14.—	<i>Carpenteria proteiformis</i> , Goës, . . . . .	.		679
	Figs. 8-10. Lateral aspect,	×	15-17	
	Fig. 11. Longitudinal section, not quite central; showing the arrangement of the segments and the thickness of the walls,	×	18	
	Figs. 12-14. Portions of the surface of different specimens, more highly magnified,	×	50	
	(Assigned in MS. to the allied genus <i>Rupertia</i> before the publication of Dr. Goës' description.)			

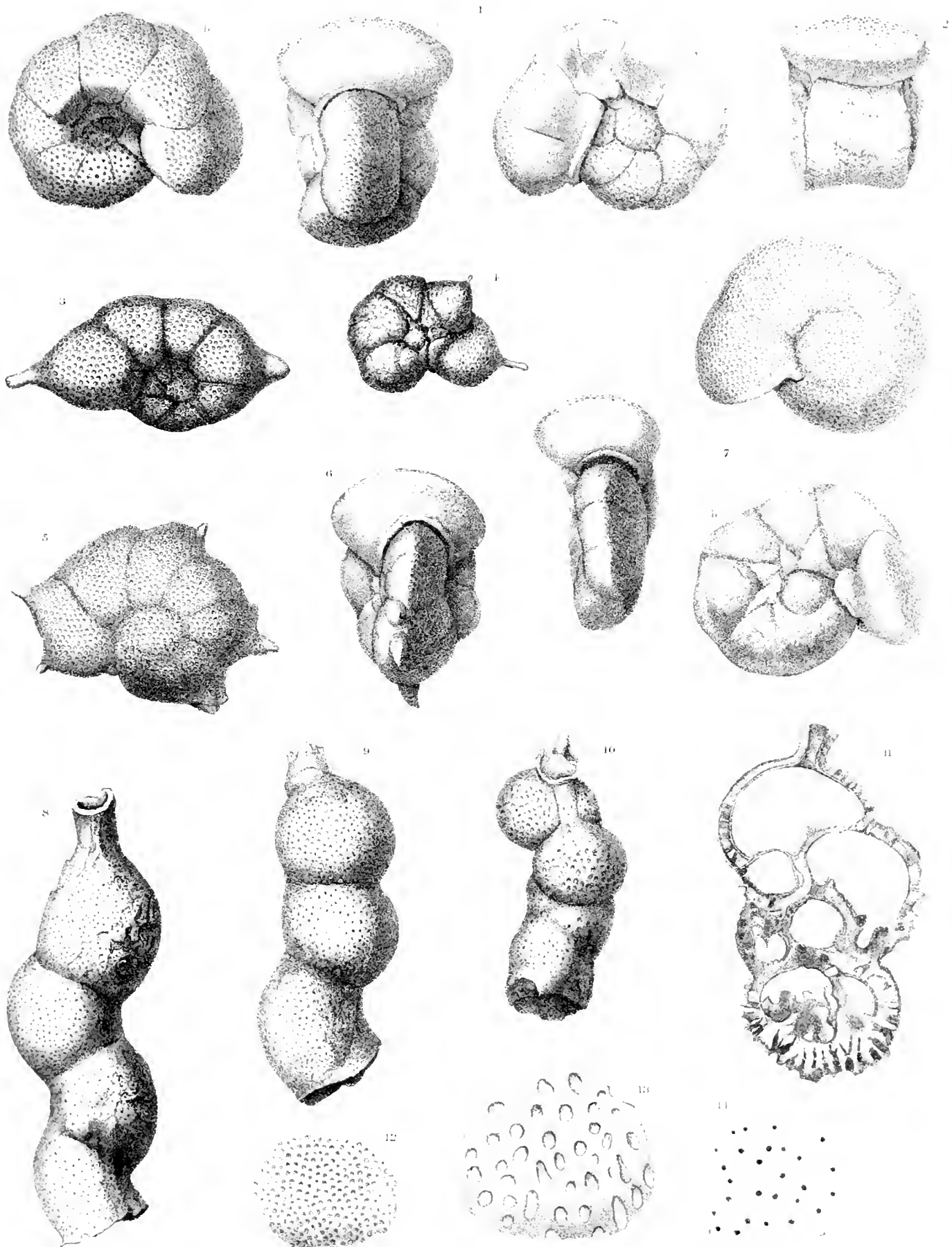


PLATE XCVIII.

PLATE XCVIII.

RUPERTIA.—CARPENTERIA.

		Diam	Page
Figures 1-12.— <i>Rupertia stabilis</i> , Wallich,	.	× 40	680
Figs. 1-6. Specimens in various conditions and stages of growth; lateral aspect.			
Fig. 7. Monstrous specimen.			
Fig. 8. Base of the test; corresponding to the superior aspect of the Rotaliform shell.			
Fig. 9. Distal aspect of the test.			
Fig. 10. Specimen laid open longitudinally, to show the segmentation.			
Fig. 11. Specimen laid open transversely.			
Fig. 12. Longitudinal section, illustrating the general structure of the test.			
„ 13-17.—Young specimens of <i>Carpenteria</i> ,			677
Figs. 13, 15, 16 (<i>Carpenteria monticularis</i> ?),	.	× 35	
Figs. 14, 17 (<i>Carpenteria balaniiformis</i> ?),	.	× 30-40	

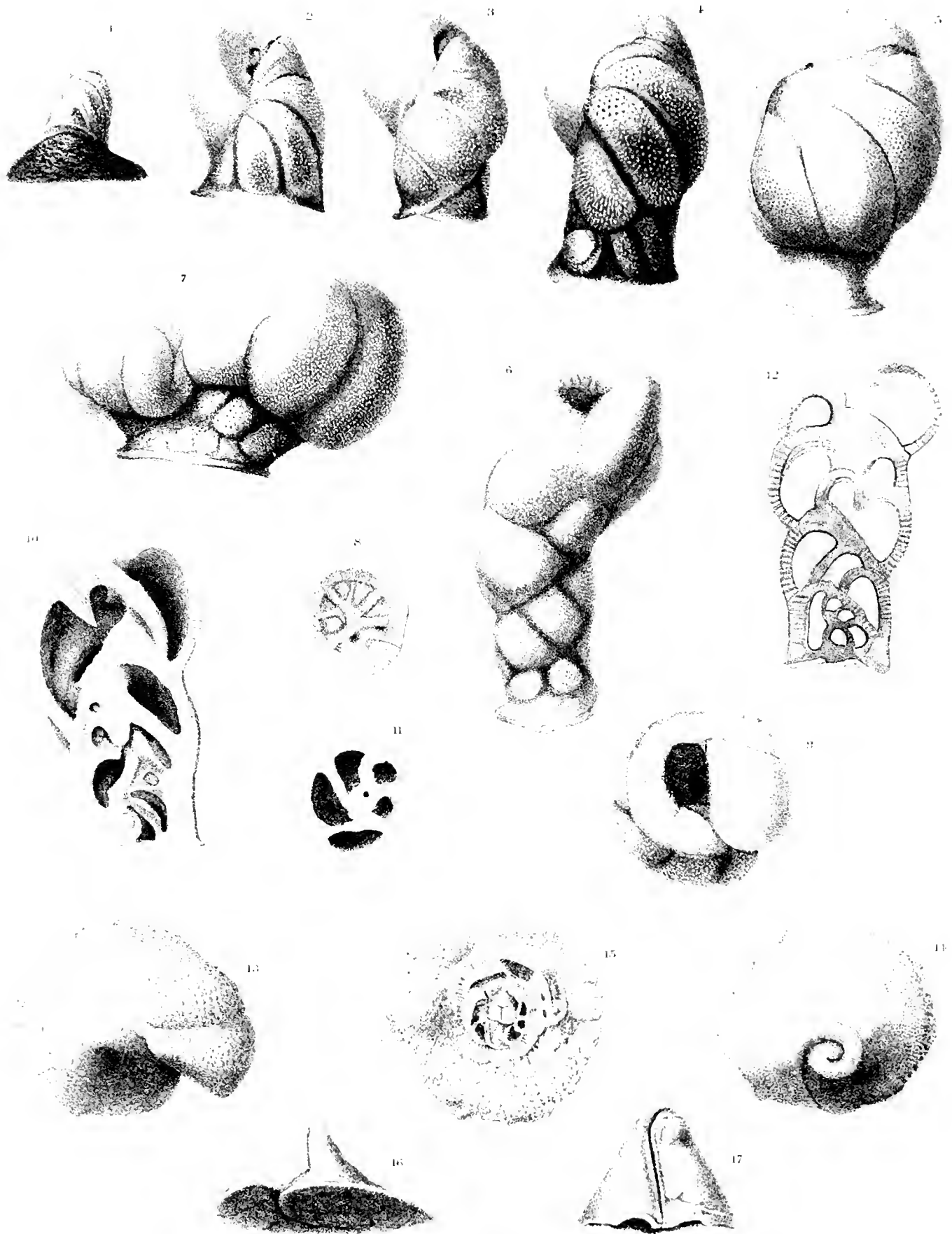


PLATE XCIX.

PLATE XCIX.

CARPENTERIA.

				Diam.	Page
Figures 1-5.—	<i>Carpenteria monticularis</i> , Carter,	.	.	× 12	677
	Fig. 5. Early stage of growth.				
„ 6, 7.—	<i>Carpenteria utricularis</i> , Carter,	.	.	× 15	678
	Early stages.				

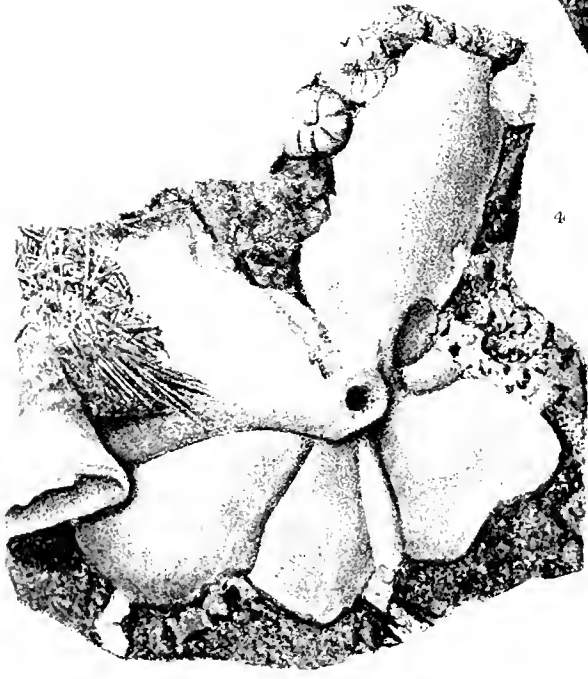
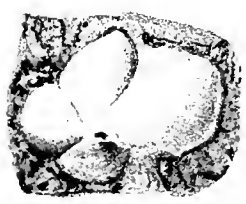


PLATE C.

PLATE C.

CARPENTERIA.—POLYTREMA.

			Diam.	Page
Figures 1-4.—	<i>Carpenteria utricularis</i> , Carter,	×	15	678
	Fig. 1. Early stage; figs. 2-4, adult specimens.			
„ 5-9.—	<i>Polytrema miniaceum</i> , Linné, sp., . . . . .	.		721
	Figs. 5-8. Specimens illustrating the general form and structure of the test,	×	20	
	Fig. 9. Minute terminal branches with apertures,	×	50	

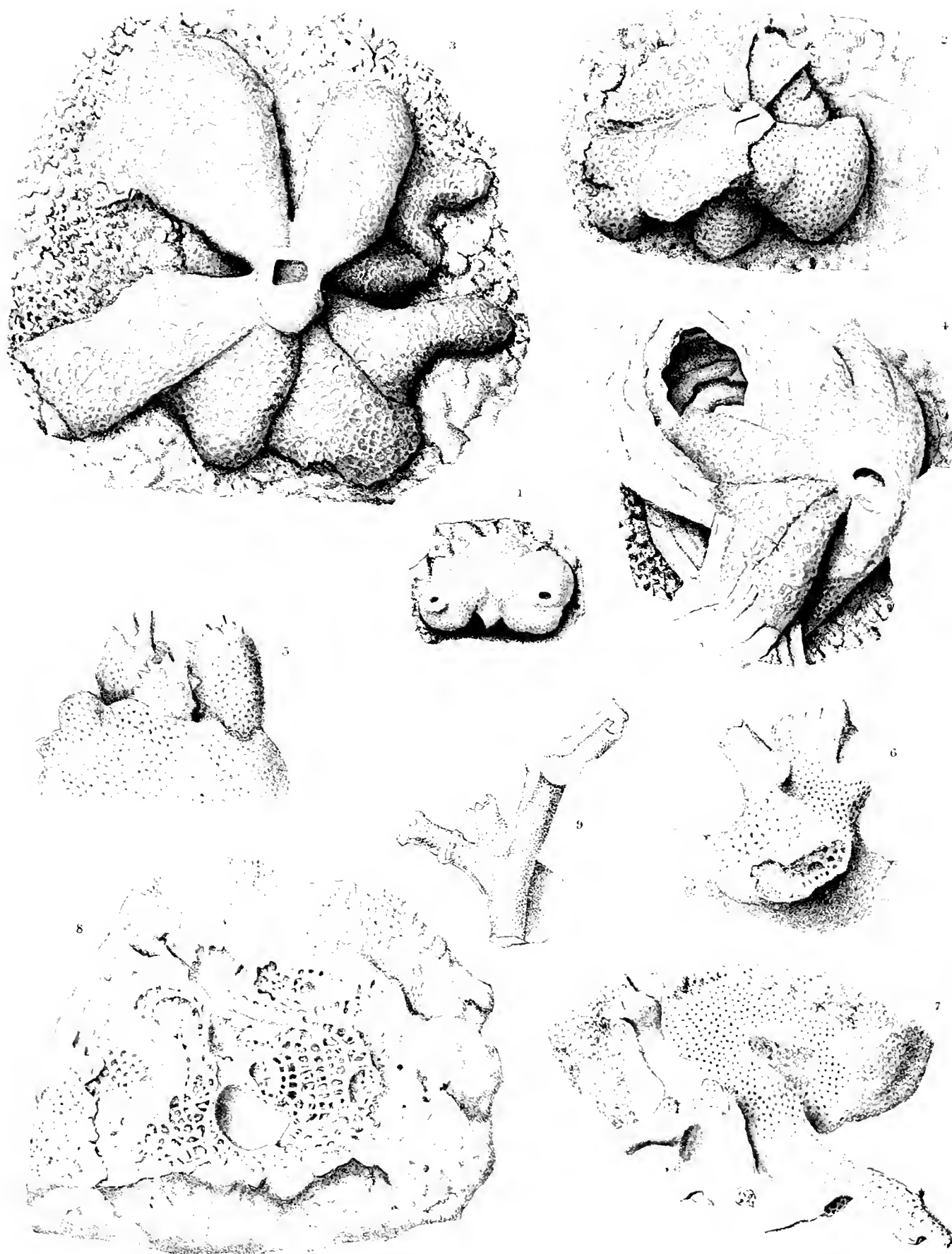


PLATE CI.

PLATE CI.

POLYTREMA.—TINOPORUS.—GYPSINA.

			Diam.	Page
Figure	1.— <i>Polytrema miniaceum</i> , Linné, sp., . . .	×	40	721
	Transparent section of the test.			
..	2, 3.— <i>Polytrema miniaceum</i> , var. <i>alba</i> , Carter, . . .	×	30	721
..	4-7.— <i>Tinoporus baculatus</i> (Montfort ?) Carpenter, . . .			716
	Figs. 4, 5. Lateral aspect; fig. 6, peripheral aspect, . . .	×	30	
	Fig. 7. Transverse section of the test, . . .	×	40	
..	8.— <i>Gypsina globulus</i> , Reuss, sp., . . .	×	30	717
..	9-12.— <i>Gypsina vesicularis</i> , Parker and Jones, sp., . . .			718
	Figs. 9-11. Various aspects of the test. . .	×	30	
	Fig. 12. Section, viewed by transmitted light, . . .	×	40	

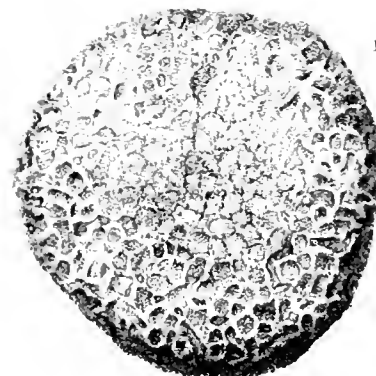
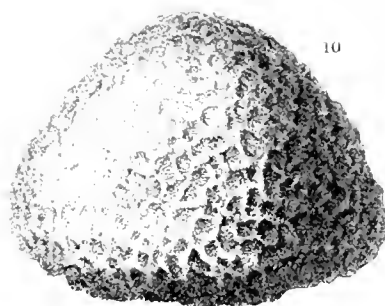
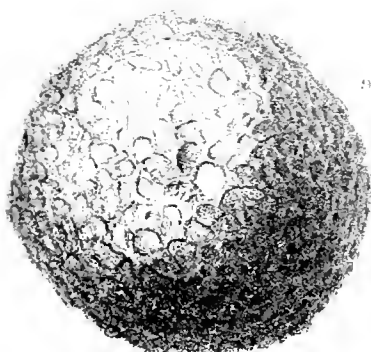
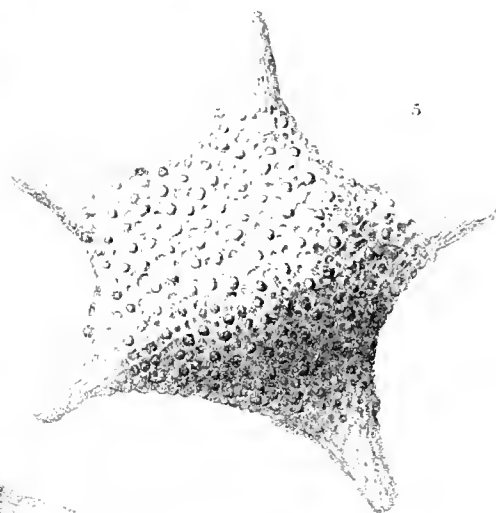
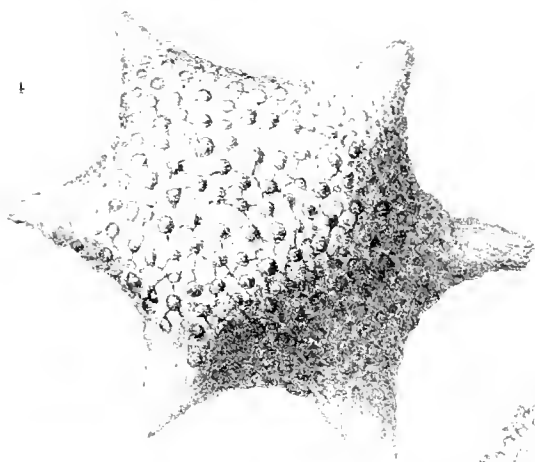
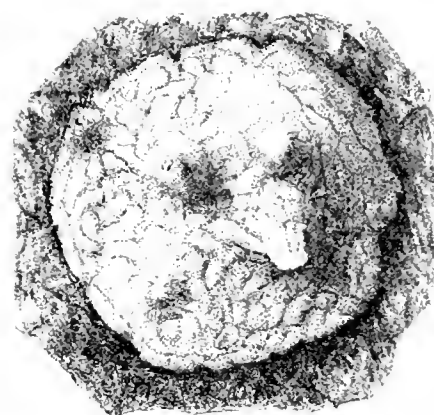
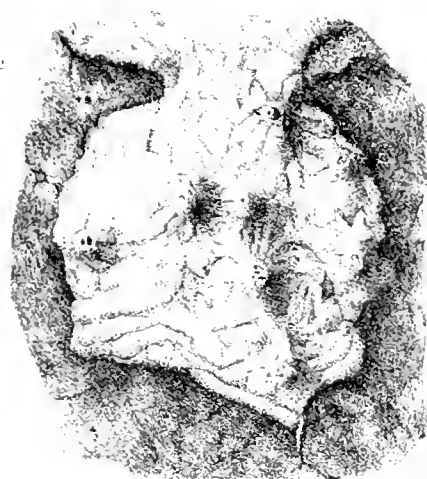
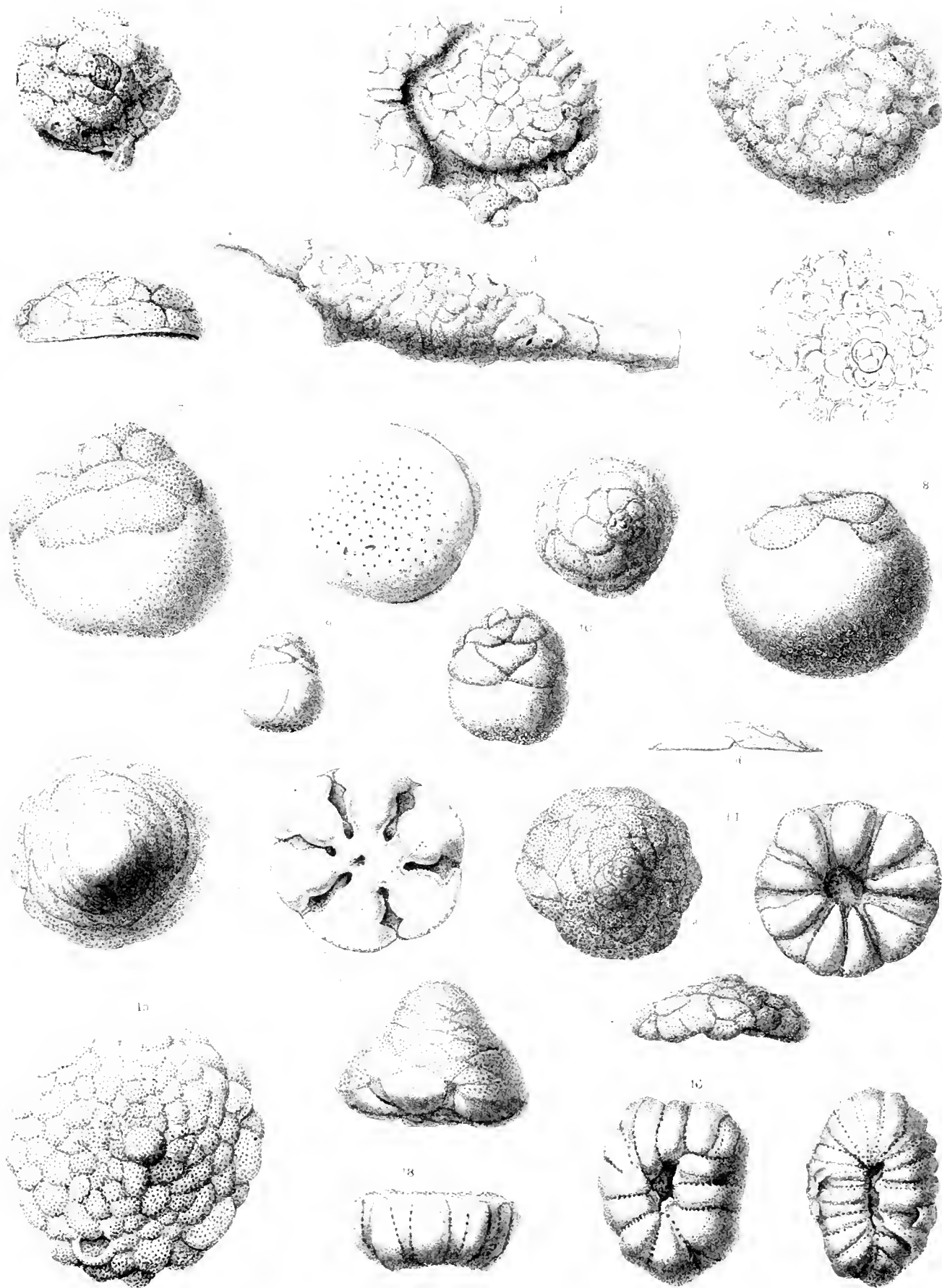


PLATE CII.

PLATE CII.

GYPSINA.—CYMBALOPORA.

			Diam.	Page
Figures	1-6.— <i>Gypsina inhærens</i> , Schultze, sp.,	×	30-40	718
	Figs. 1-3. Free surface; fig. 4, adherent surface; fig. 5, peripheral aspect; fig. 6, horizontal section of the test, viewed by transmitted light.			
„	7-12.— <i>Cymbalopora (Tretomphalus) bulloides</i> , d'Orbigny, sp.,	×	60	638
	Figs. 7-10. Lateral aspect; fig. 11, superior aspect; fig. 12, inferior aspect.			
	Fig. 7. Is drawn from a pelagic specimen; the rest from bottom specimens.			
„	13.— <i>Cymbalopora poeyi</i> , d'Orbigny, sp.,	×	50	636
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	14.— <i>Cymbalopora poeyi</i> , var.,	×	50	637
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect; <i>d</i> , peripheral aspect of a somewhat similar, more slightly built specimen.			
„	15-18.— <i>Cymbalopora tabellaformis</i> , n. sp.,	×	40	637
	Fig. 15. Superior aspect; figs. 16, 17, inferior aspect; fig. 18, peripheral aspect.			



TINOPURUS

YMBALOPOPA



PLATE CIII.

PLATE CIII.

PULVINULINA.

			Diam.	Page
Figures	1, 2.— <i>Pulvinulina menardii</i> , d'Orbigny, sp., .	×	35	690
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
	Fig. 1. Bottom specimen; fig. 2, surface specimen.			
„	3.— <i>Pulvinulina menardii</i> , var. <i>fimbriata</i> , nov., .	×	35	691
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect.			
„	4-6.— <i>Pulvinulina tumida</i> , Brady,	×	35	692
	Figs. 4 <i>a</i> , 6. Superior aspect; fig. 4 <i>b</i> , inferior aspect; fig. 4 <i>c</i> , 5, peripheral aspect.			
	Figs. 4, 5. Bottom specimens; fig. 6, surface specimen.			
„	7.— <i>Pulvinulina patagonica</i> , d'Orbigny, sp., .	×	35	693
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	8-10.— <i>Pulvinulina canariensis</i> , d'Orbigny, sp., .	×	35	692
	<i>a,a,a</i> , Superior aspect; <i>b,b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.			
	Figs. 8, 9. Bottom specimens; fig. 10, surface specimen.			
„	11, 12.— <i>Pulvinulina crassa</i> , d'Orbigny, sp., .	×	40	694
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.			
	Fig. 11. Bottom specimen; fig. 12, surface specimen.			
„	13, 14.— <i>Pulvinulina exigua</i> , n. sp.,	×	40	696
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.			

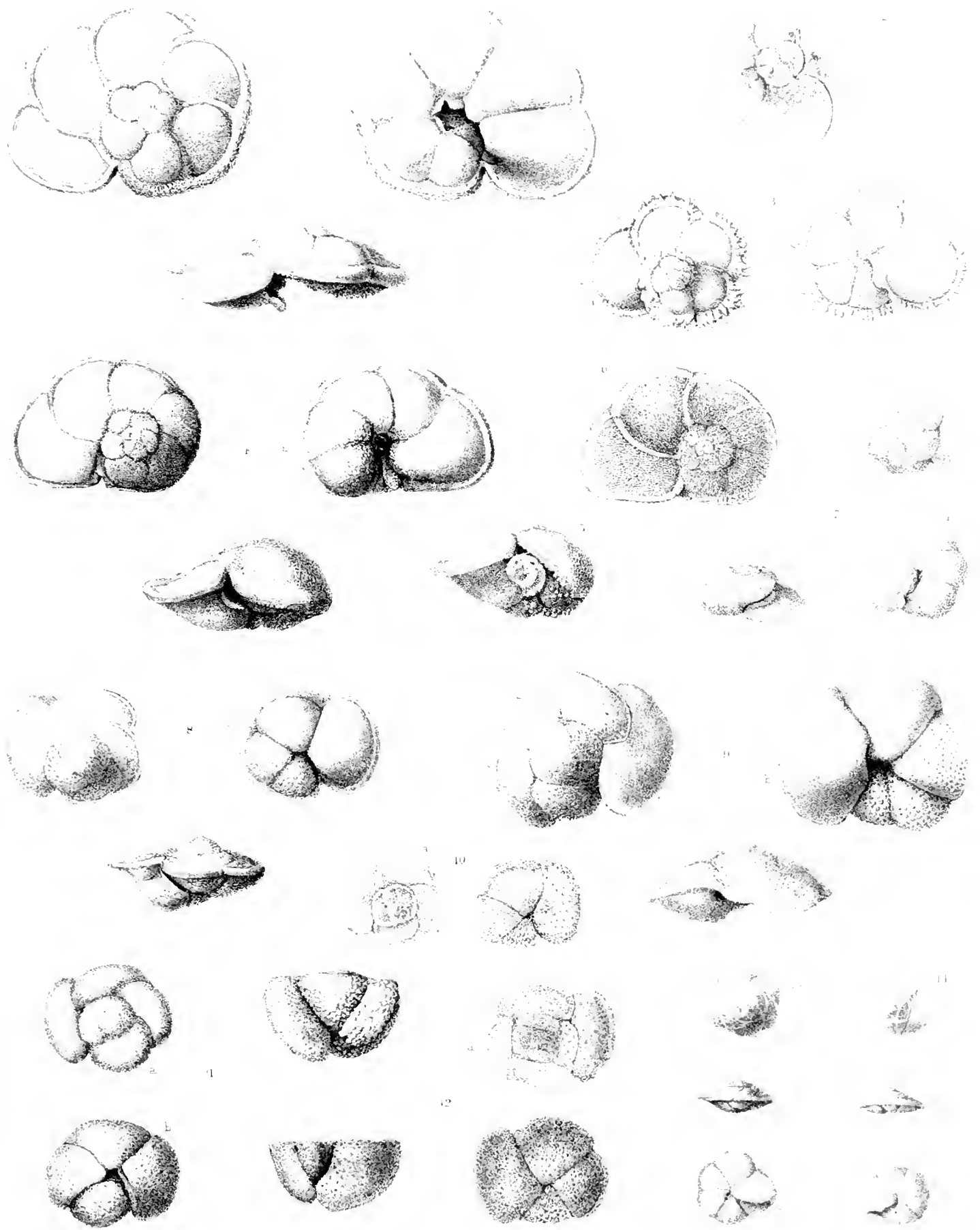
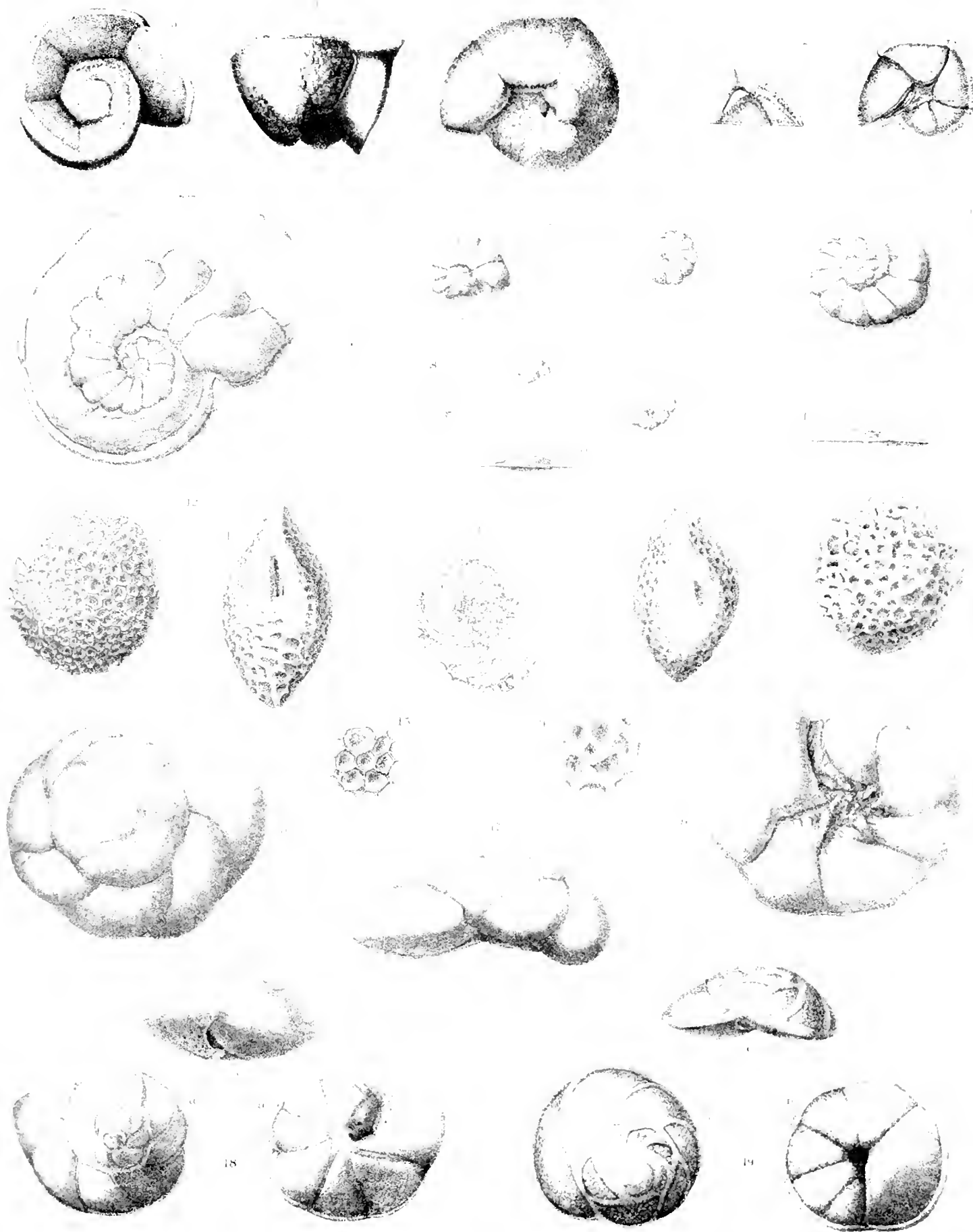


PLATE CIV.

PLATE CIV.

PULVINULINA.

			Diam.	Page
Figures	1, 2.— <i>Pulvinulina micheliniana</i> , d'Orbigny, sp., .	×	40	694
	<i>a</i> , Superior aspect; <i>b, b</i> , inferior aspect; <i>c, c</i> , peripheral aspect.			
	Fig. 1. Bottom specimen; fig. 2, surface specimen.			
„	3–11.— <i>Pulvinulina pauperata</i> , Parker and Jones, .	×	25	696
	Figs. 3–9. Lateral aspects of the shell, in various stages.			
	Figs. 10–11. Peripheral aspect.			
„	12–16.— <i>Pulvinulina favus</i> , Brady, . . .			701
	Figs. 12 <i>a</i> , 13 <i>a</i> , Lateral aspect; figs. 12 <i>b</i> , 13 <i>b</i> , peripheral aspect, . . .	×	40	
	Fig. 14. Horizontal section of the test, . . .	×	40	
	Figs. 15, 16. Portions of the surface more highly magnified, . . .	×	80	
„	17.— <i>Pulvinulina punctulata</i> , d'Orbigny, sp., .	×	16	685
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	18.— <i>Pulvinulina repanda</i> , Fichtel and Moll, sp., .	×	30	684
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	19.— <i>Pulvinulina repanda</i> , var. <i>concamerata</i> , Montagu, var., . . .	×	30	685
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			



Shells adnat. (el) 4.0th

PULVINULINA

PLATE CV.

PLATE CV.

PULVINULINA.

Figure			Diam.	Page
1.—	<i>Pulvinulina concentrica</i> , Parker and Jones, .	×	35	686
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 2.—	<i>Pulvinulina umbonata</i> , Reuss,	×	50	695
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 3-6.—	<i>Pulvinulina elegans</i> , d'Orbigny, sp.,			699
	Fig. 3. Deep-water form (<i>Pulvinulina partschiana</i> , d'Orbigny, sp.); <i>a</i> , superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect,	×	40	
	Figs. 4, 5. Typical specimens, from medium depths,	×	35	
	Fig. 6. Carinate specimen,	×	35	
„ 7.—	<i>Pulvinulina procera</i> , Brady,	×	35	698
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 8, 9.—	<i>Pulvinulina karsteni</i> , Reuss, sp.,	×	50	698
	Fig. 8. Specimen from Magellans Strait.			
	Fig. 9. Arctic specimen.			
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.			

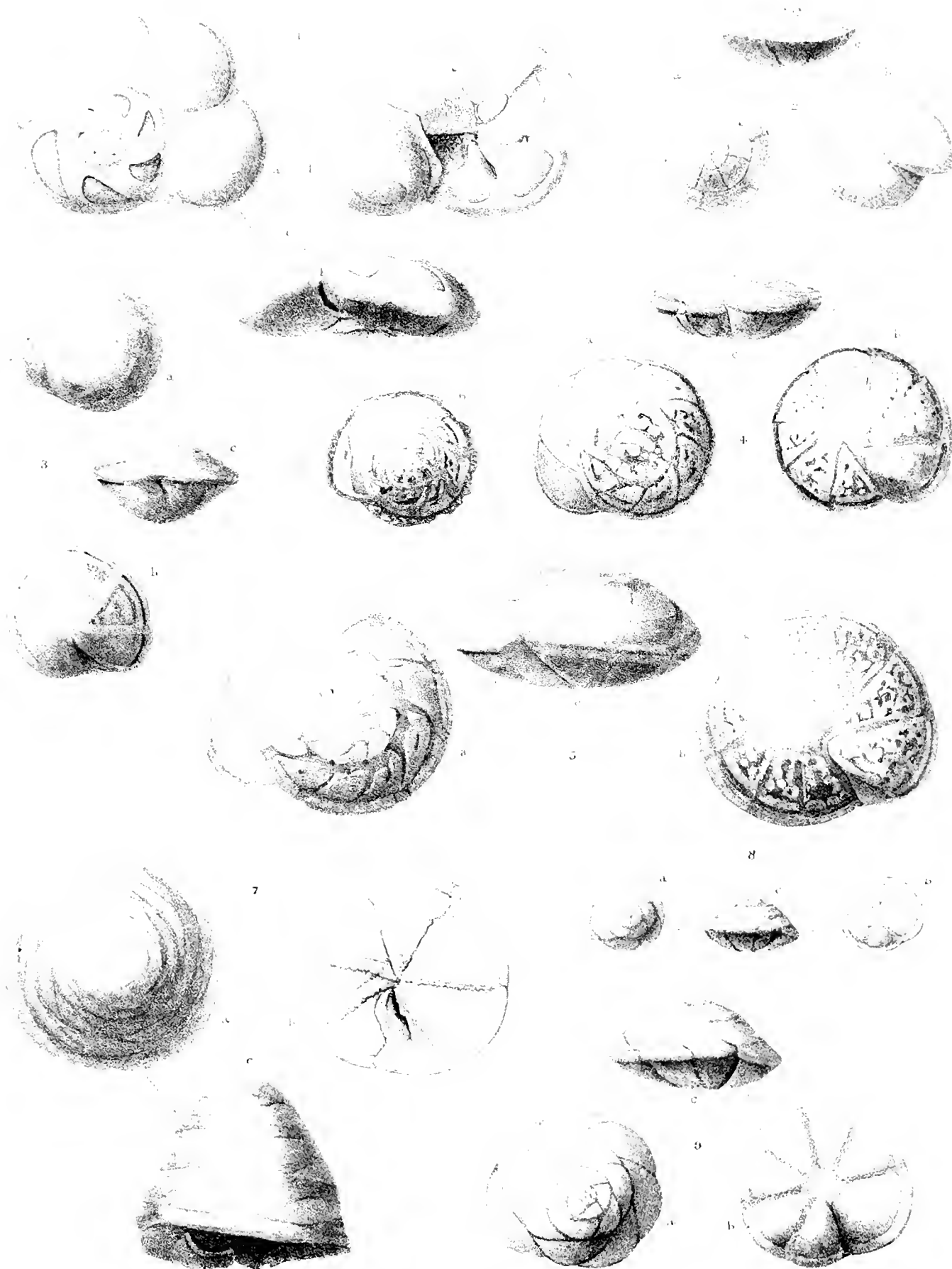


PLATE CVI.

PLATE CVI.

PULVINULINA.—ROTALIA.

Figure			Diam.	Page
1.—	<i>Pulvinulina berthelotiana</i> , d'Orbigny, sp., .	×	35	701
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 2, 3.—	<i>Pulvinulina lateralis</i> , Terquem, sp., .	×	35–40	689
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.			
„ 4.—	<i>Pulvinulina oblonga</i> , Williamson, sp., .	×	40	688
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 5.—	<i>Pulvinulina auricula</i> , Fichtel and Moll, sp., .	×	40	688
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 6, 7.—	<i>Pulvinulina hauerii</i> , d'Orbigny, sp., .	×	40–50	690
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.			
„ 8.—	<i>Pulvinulina oblonga</i> , var. <i>scabra</i> , nov., .	×	50	689
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 9.—	<i>Rotalia papillosa</i> , n. sp., .	×	30	708
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			

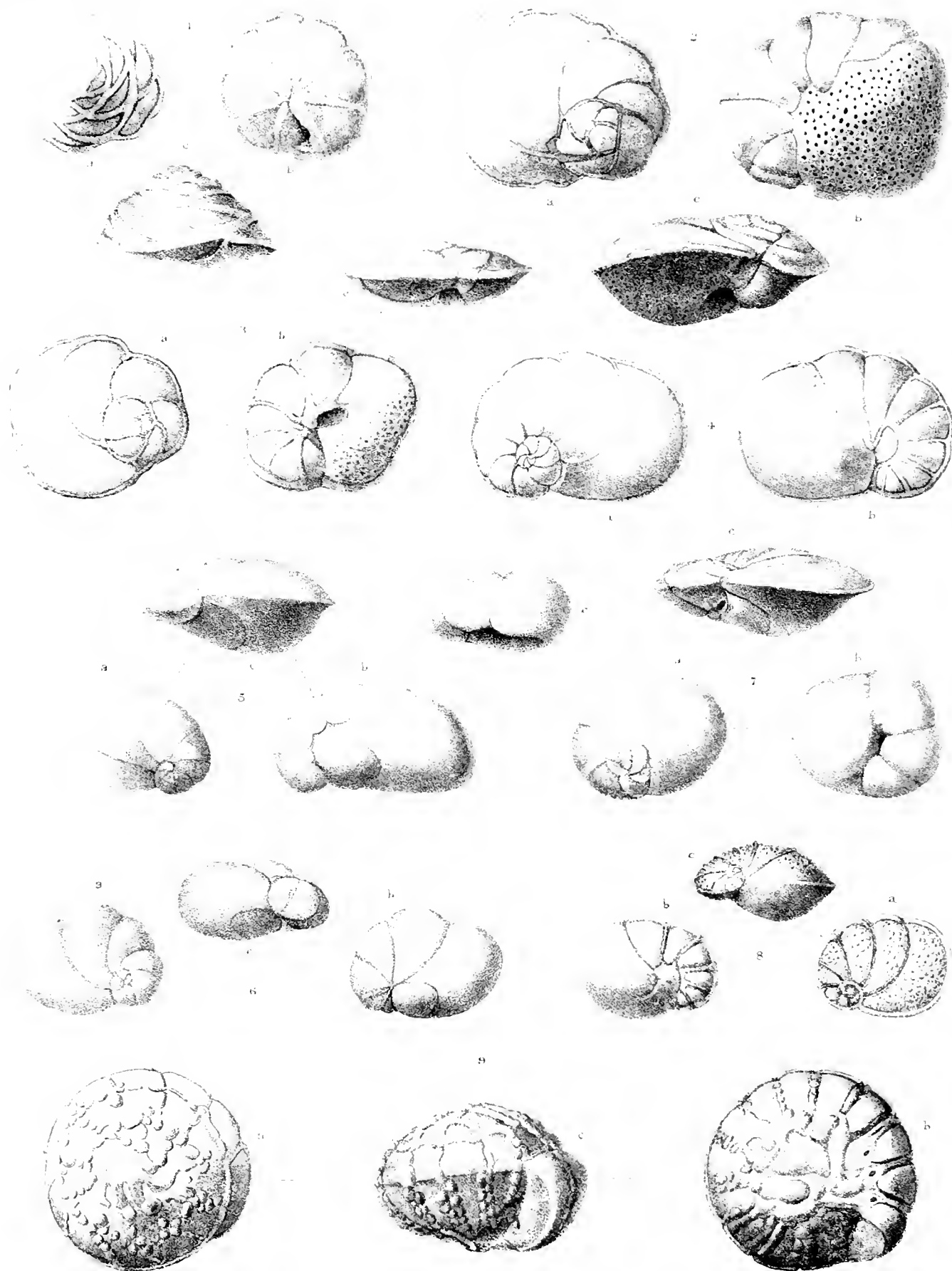
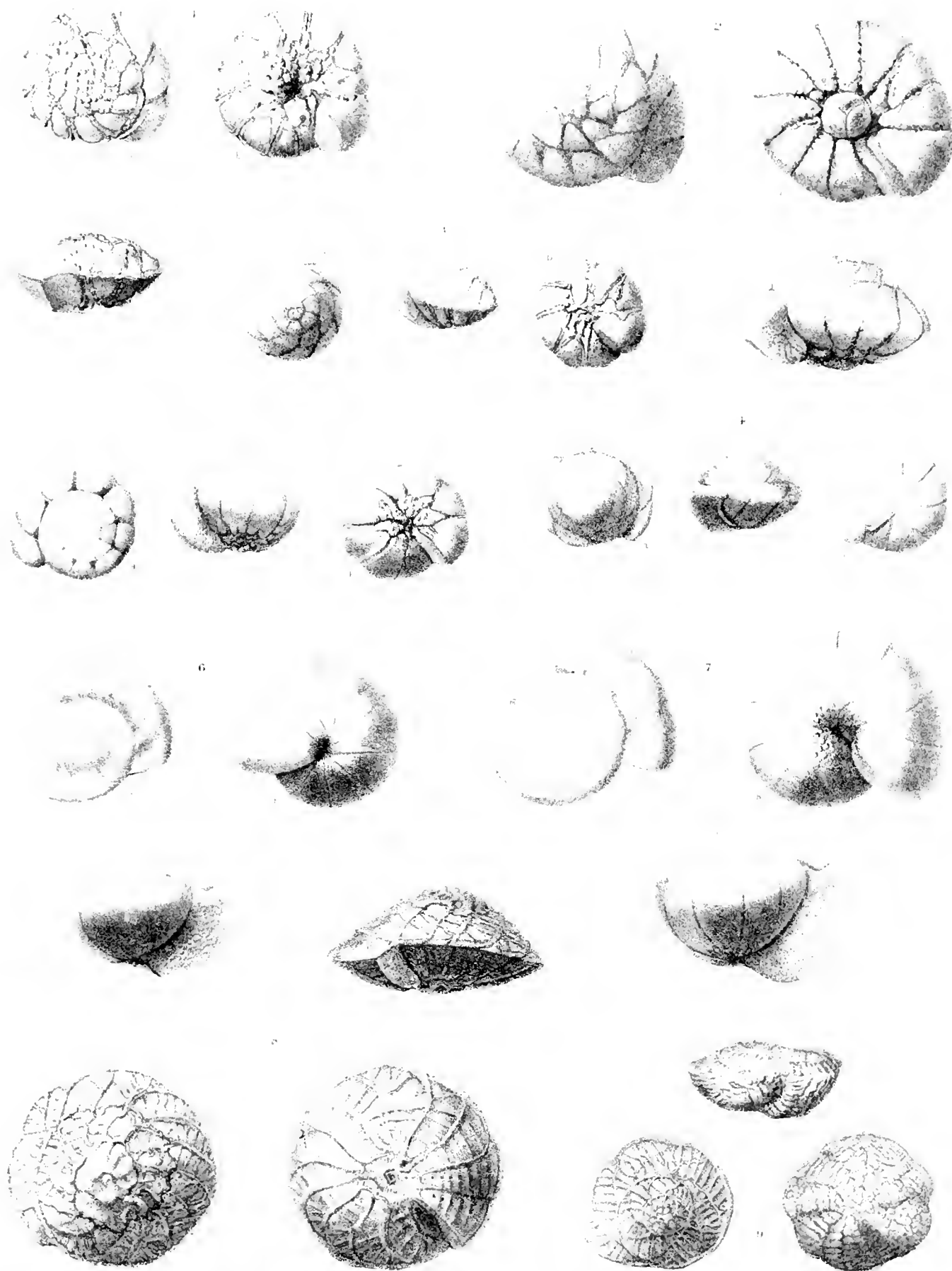


PLATE CVII.

PLATE CVII.

ROTALIA.

Figure		Diam.	Page
	1.— <i>Rotalia papillosa</i> , var. <i>compressiuscula</i> , nov.,	× 30	708
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„	2, 3.— <i>Rotalia beccarii</i> , Linné, sp.,	× 50	704
	<i>a,a</i> , Superior aspect. <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.		
„	4.— <i>Rotalia broeckhiana</i> , Karrer,	× 50	705
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„	5.— <i>Rotalia orbicularis</i> (?), d'Orbigny,	× 50	706
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect. (A passage-form between <i>Rotalia beccarii</i> and <i>Rotalia orbicularis</i> . The typical <i>Rotalia orbicularis</i> is given at Pl. CXV. fig. 6.)		
„	6, 7.— <i>Rotalia soldanii</i> , d'Orbigny,	× 40	706
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.		
„	8, 9.— <i>Rotalia clathrata</i> , n. sp.,	× 50	709
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.		



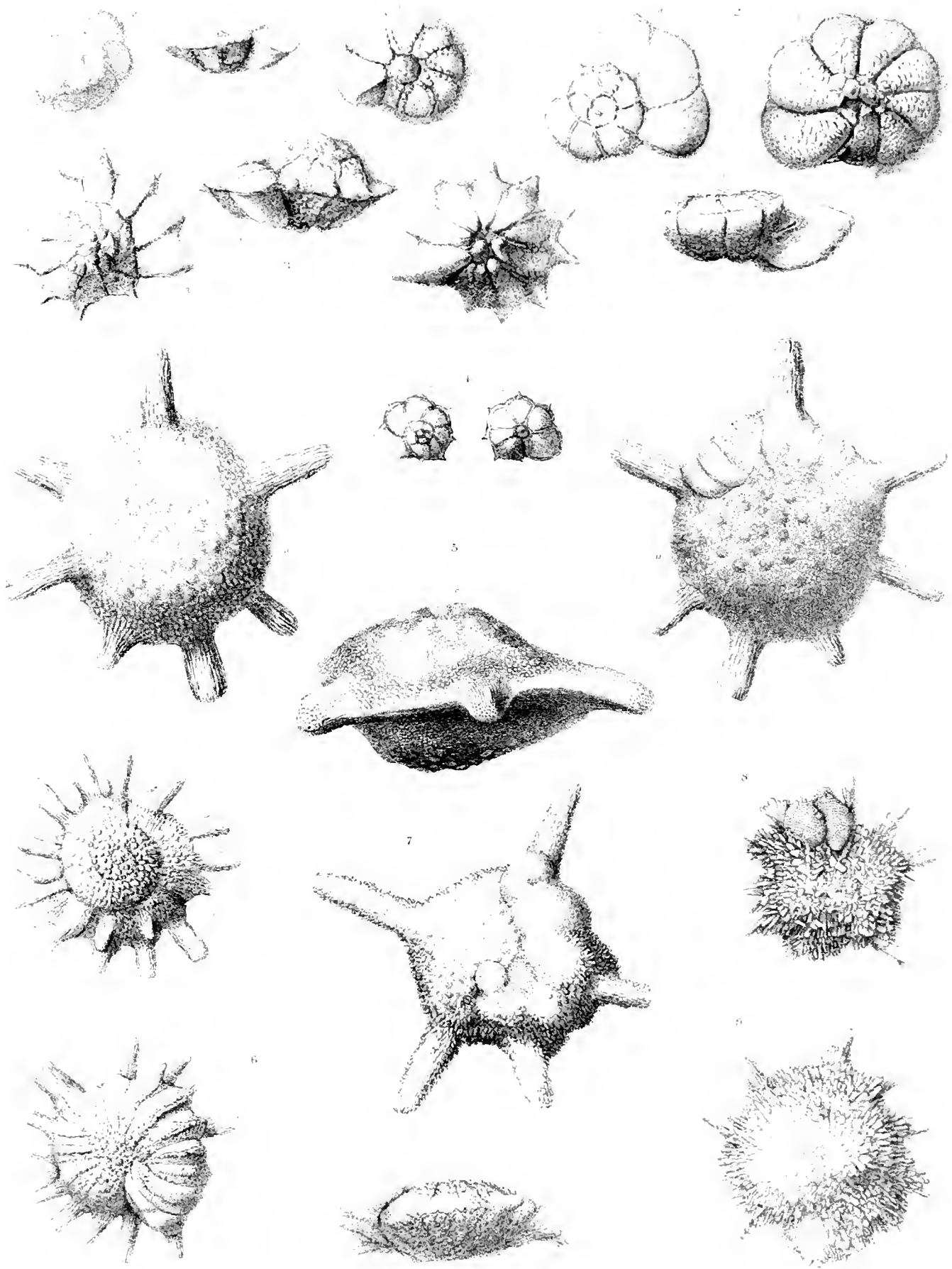
ROTALIA

PLATE CVIII.

PLATE CVIII.

ROTALIA.—CALCARINA.

			Diam.	Page
Figure	1.— <i>Rotalia papillosa</i> , var. <i>compressiuscula</i> , nov. (young),	×	50	708
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	2.— <i>Rotalia venusta</i> , n. sp.,	×	50	708
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	3.— <i>Rotalia calcar</i> , d'Orbigny, sp.,	×	50	709
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	4. Young specimen of the same, or possibly of <i>Rotalia dentata</i> , Parker and Jones,	×	50	710
„	5, 7.— <i>Calcarina spengleri</i> , Linné, sp.,	×	30-35	712
	Fig. 5 <i>a</i> . Superior aspect; figs. 5 <i>b</i> , 7, inferior aspect; fig. 5 <i>c</i> , peripheral aspect.			
„	6.— <i>Calcarina defranci</i> , d'Orbigny,	×	30	714
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	8, 9.— <i>Calcarina hispida</i> , Brady,	×	30	713



ROTALIA CALCARINA

PLATE CIX.

PLATE CIX.

NONIONINA.—POLYSTOMELLA.

a, Lateral aspect; *b*, peripheral aspect.

Figures			Diam.	Page
1, 2.	— <i>Nonionina asterizans</i> , Fichtel and Moll, sp., .	×	50	728
„	3-5.— <i>Nonionina stelligera</i> , d'Orbigny, .	.	.	728
	Figs. 3, 4 × 75 diam. ;—fig. 5, .	×	60	
„	6, 7.— <i>Nonionina depressula</i> , Walker and Jacob, sp., .	×	75	725
„	8, 9.— <i>Nonionina umbilicatula</i> , Montagu, sp., .	×	70	726
„	10, 11.— <i>Nonionina pompilioides</i> , Fichtel and Moll, sp., .	×	75	727
„	12, 13.— <i>Nonionina boucana</i> , d'Orbigny, .	×	70	729
„	14-16.— <i>Nonionina scapha</i> , Fichtel and Moll, sp., .	×	75	730
„	17-19.— <i>Nonionina turgida</i> , Williamson, sp., .	×	75	731
„	20, 21.— <i>Nonionina orbicularis</i> , Brady, .	×	50	727
„	22, 23.— <i>Polystomella striatopunctata</i> , Fichtel and Moll. sp., .	×	75	733



PLATE CX.

PLATE CX.

POLYSTOMELLA.

a, Lateral aspect ; *b*, peripheral aspect.

Figure			Diam	Page
	1.— <i>Polystomella subnodosa</i> , Münster, sp., .	×	75	734
„	2-5.— <i>Polystomella arctica</i> , Parker and Jones, .	.	.	735
	Figs. 2 <i>a</i> , 3, Lateral aspect; fig. 2 <i>b</i> , peripheral aspect,	×	30	
	Fig. 4. Horizontal section, showing the segmentation, and the laminated thickening of the walls,	×	30	
	Fig. 5. Portion of a section, more highly magnified, showing the septal apertures, and the forked interseptal canals the openings of which form the double rows of sutural orifices,	×	100	
„	6, 7.— <i>Polystomella crista</i> , Linné, sp.,	×	40	736
„	8, 9, 11.— <i>Polystomella macella</i> , Fichtel and Moll, sp.,	×	45-60	737
„	10.—Young specimen, possibly of the same species, with the peripheral ends of the septa forming angular or pointed projections,	×	60	737
„	12.— <i>Polystomella verriculata</i> , Brady,	×	65	738
„	13-15.— <i>Polystomella imperatrix</i> , Brady,	×	30	738
„	16-17.— <i>Polystomella craticulata</i> , Fichtel and Moll, sp.,	×	30-40	739

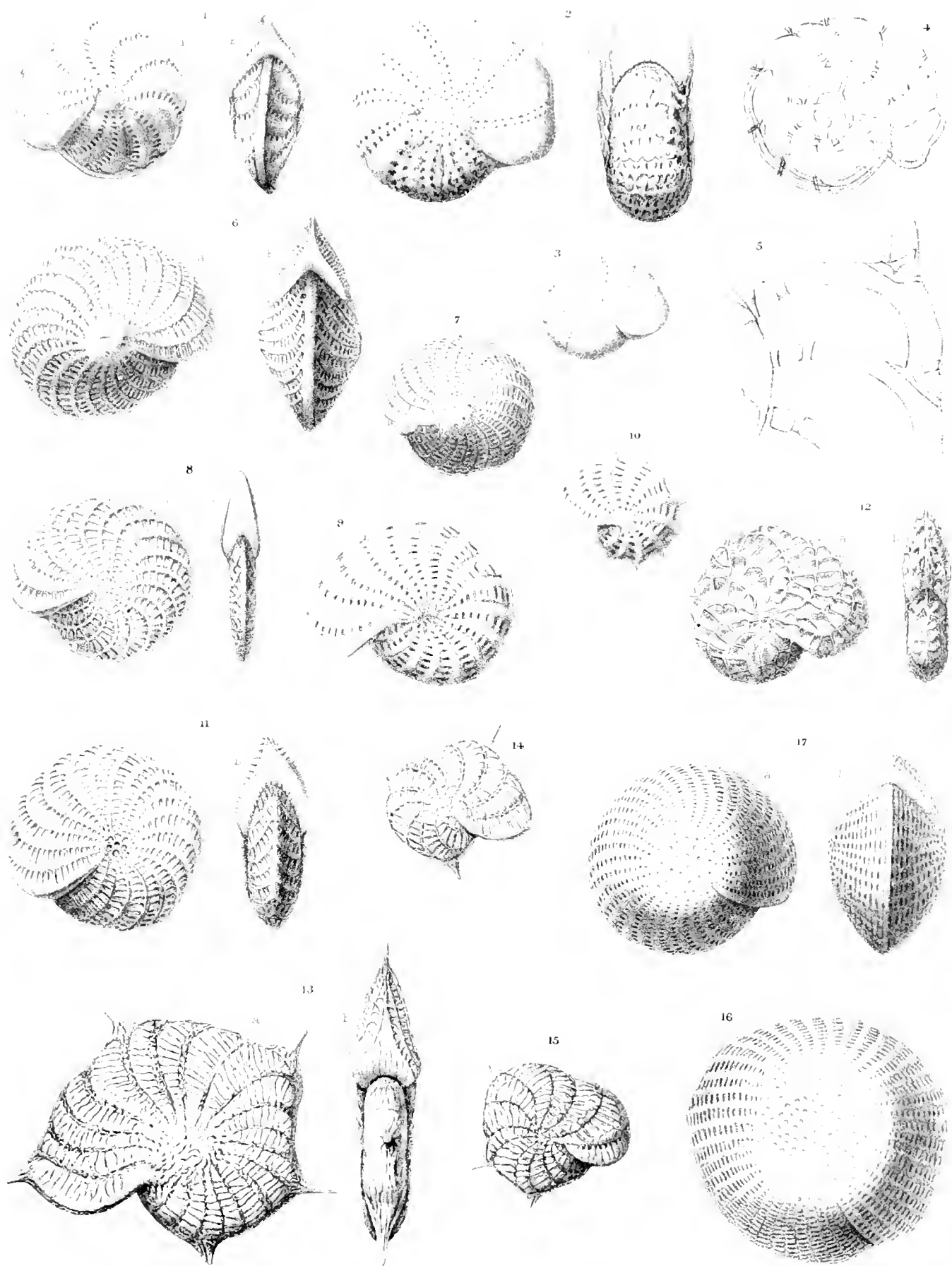
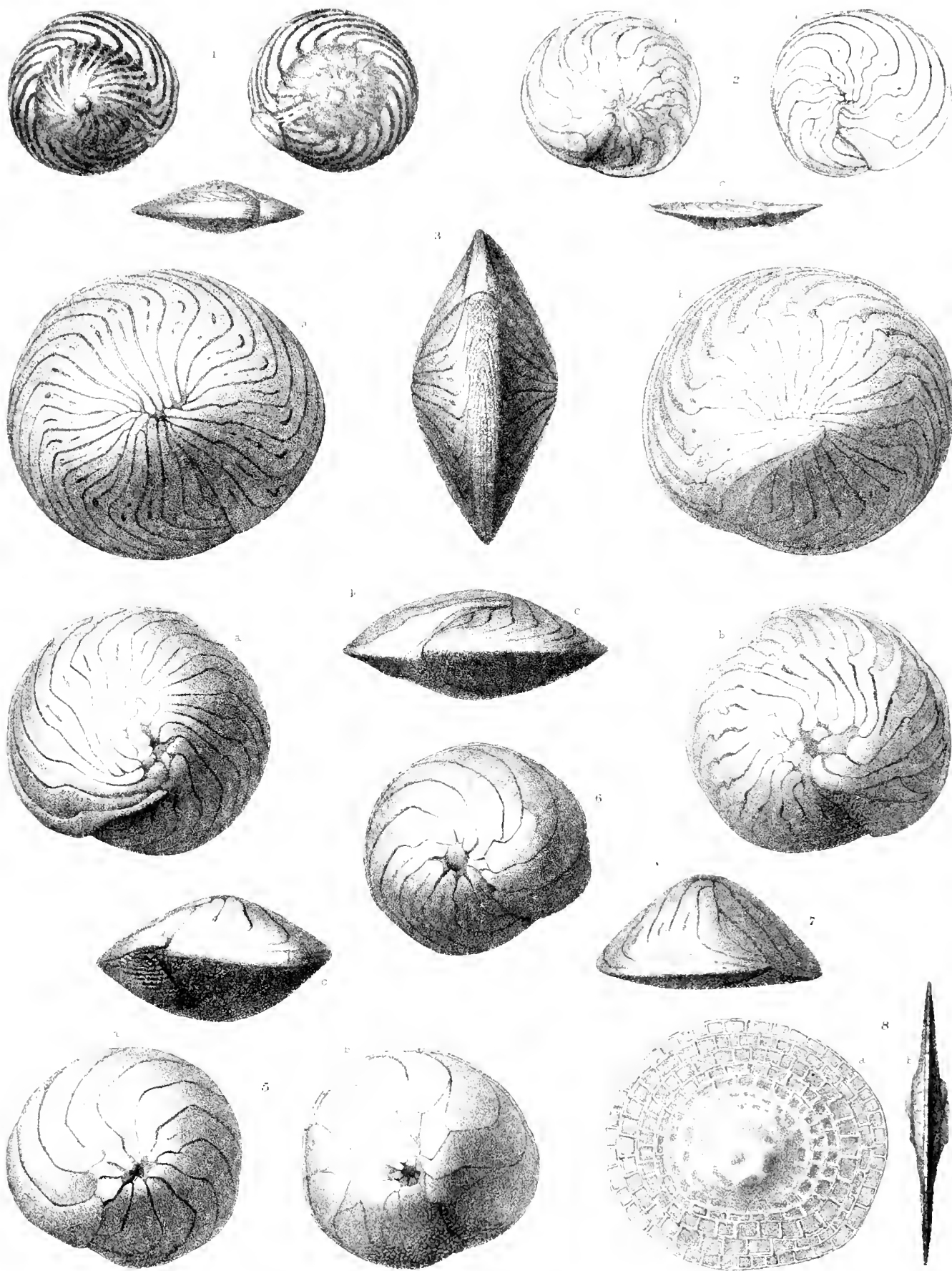


PLATE CXI.

PLATE CXI.

AMPHISTEGINA.—CYCLOCYPEUS.

			Diam.	Page		
Figures 1-7.—	<i>Amphistegina lessonii</i> , d'Orbigny,	.	×	30	740	
	<i>a</i> , Superior lateral aspect; <i>b</i> , inferior lateral aspect; <i>c</i> , peripheral aspect.					
	Figs. 1-4. Typical, compressed, lenticular form.					
	Figs. 5, 6. Thick variety, commonly inequilateral.					
	Fig. 7. Thick, very inequilateral or dome-shape variety.					
„	8.—	<i>Cycloclypeus guembelianus</i> , Brady,	.	×	35	751
	<i>a</i> , Lateral aspect; <i>b</i> , peripheral aspect.					



AMPHISTEGINA — CYCLOCLYPEUS

PLATE CXII.

(ZOOLOGICAL CHALLENGER.—PART XXII.—1884.)—Y.

PLATE CXII.

OPERCULINA.—NUMMULITES.—HETEROSTEGINA.

			Diam.	Page
Figures	1, 2.— <i>Operculina ammonoides</i> , Gronovius, sp., .	×	50	745
	Figs. 1 <i>a</i> , 2. Lateral aspect; fig. 1 <i>b</i> , peripheral aspect.			
„	3, 4, 5, 8.— <i>Operculina complanata</i> , DeFrance, sp., .	×	12	743
	Figs. 3 <i>a</i> , 4, 5, 8. Lateral aspect; fig. 3 <i>b</i> , peripheral aspect.			
„	6, 7, 9, 10.— <i>Operculina complanata</i> , var. <i>granulosa</i> , Leymerie,	×	12	743
„	11–13.— <i>Nummulites cumingii</i> , Carpenter,	×	18	749
	Figs. 11 <i>a</i> , 12, 13 <i>a</i> . Lateral aspect; figs. 11 <i>b</i> , 13 <i>b</i> , peripheral aspect.			
„	14–18.— <i>Heterostegina depressa</i> , d'Orbigny,			746
	Figs. 14, 15. Adult specimens, lateral aspect,	×	12	
	Fig. 16. Peripheral aspect,	×	15	
	Figs. 17, 18. Young specimens,	×	25	
„	19, 20.— <i>Heterostegina</i> , sp.,			746
	Young specimens (<i>cf. Heterostegina curra</i> , Moebius),	×	25	

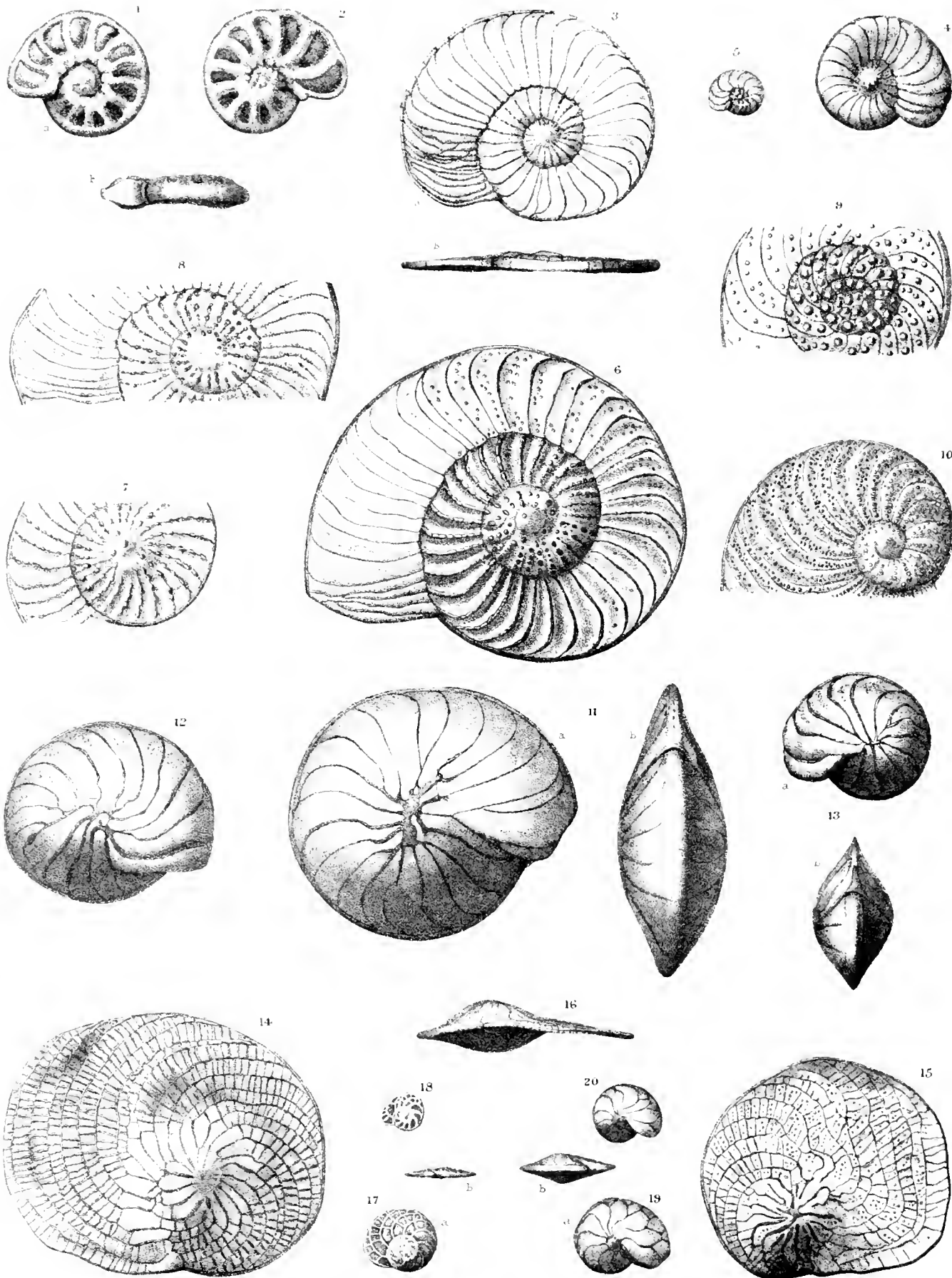


PLATE CXIII.

PLATE CXIII.

TEXTULARIA.—CASSIDULINA.—CORNUSPIRA, &c.

Figure			Diam.	Page
1.	— <i>Textularia conica</i> , d'Orbigny, short variety, <i>a</i> , Lateral aspect ; <i>b</i> , oral end.	×	50	365
2.	— <i>Textularia crispata</i> , n. sp., <i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect.	×	60	359
3-5.	— <i>Textularia transversaria</i> , n. sp., Figs. 3 <i>a</i> , 4, 5. Lateral aspect ; 3 <i>b</i> , oral end.	×	75	359
6.	— <i>Bulimina convoluta</i> , Williamson, <i>a</i> , Superior aspect ; <i>b</i> , inferior aspect.	×	100	409
7.	— <i>Bolivina lobata</i> , var. <i>strigosa</i> , nov., <i>a</i> , Lateral aspect ; <i>b</i> , oral end.	×	80	425
8.	— <i>Cassidulina calabra</i> , Seguenza, sp., <i>a</i> , <i>b</i> , Ventral and dorsal peripheral aspects ; <i>c</i> , lateral aspect.	×	75	431
9.	— <i>Cassidulina</i> (<i>Orthoplecta</i>) <i>clavata</i> , n. sp.,	×	100	432
10.	— <i>Ehrenbergina pupa</i> , d'Orbigny, sp., <i>a</i> , <i>b</i> , Ventral and dorsal peripheral aspects ; <i>c</i> , lateral aspect.	×	80	433
11.	— <i>Cristellaria latifrons</i> , n. sp., <i>a</i> , Lateral aspect ; <i>b</i> , front peripheral aspect.	×	35	544
12.	— <i>Cristellaria dentata</i> , Karrer, <i>a</i> , Lateral aspect ; <i>b</i> , front peripheral aspect.	×	35	540
13.	— <i>Amphicoryne</i> , sp. (?)	×	50	556
14.	— <i>Sagrina limbata</i> , n. sp.,	×	100	586
15.	— <i>Miliolina scrobiculata</i> , n. sp., <i>a</i> , <i>b</i> , Lateral aspects ; <i>c</i> , oral aspect.	×	50	173
16.	— <i>Miliolina pygmaea</i> , Reuss, sp., <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect.	×	45	163
17.	— <i>Miliolina ferussacii</i> , d'Orbigny, sp., Lateral aspects.	×	30	175
18, 19.	— <i>Cornuspira striolata</i> , Brady, Fig. 18. <i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect, Fig. 19. Portion of the surface, more highly magnified,	×	5 20	202
20.	— <i>Cornuspira crassisepta</i> , Brady,	×	60	202
21.	— <i>Cornuspira lacunosa</i> , Brady,	×	60	202

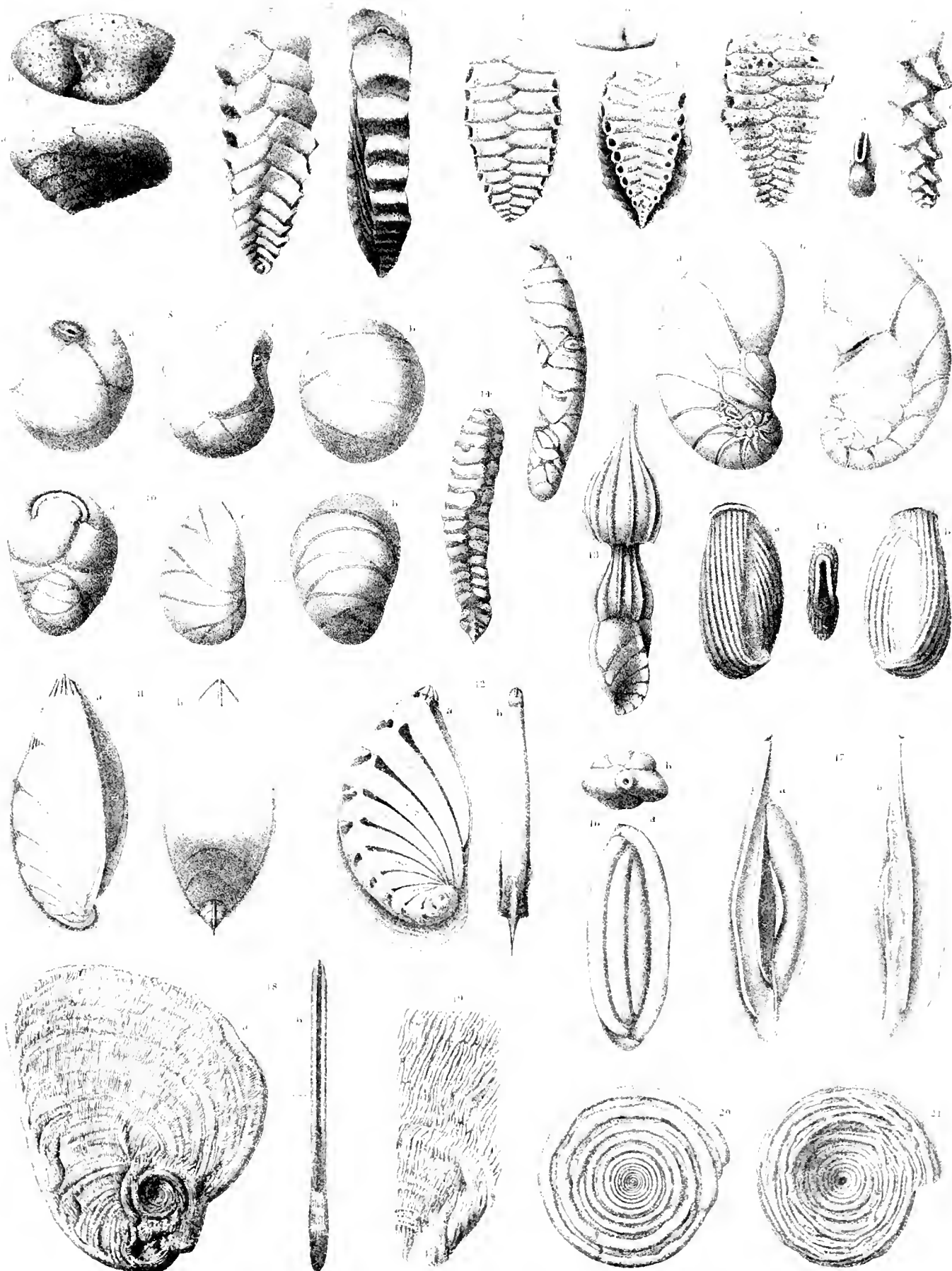


PLATE CXIV.

PLATE CXIV.

MILIOLINA.—PLANISPIRINA.—LAGENA, &c.

				Diam.	Page
Figure	1.— <i>Miliolina terquemiana</i> , n. sp.,	×	60	166	
	<i>a</i> , Lateral aspect; <i>b</i> , oral aspect.				
„	2.— <i>Miliolina bertheliniana</i> , n. sp.,	×	100	166	
	<i>a</i> , Lateral aspect; <i>b</i> , oral aspect.				
„	3.— <i>Miliolina bucculenta</i> , n. sp.,	×	20	170	
	<i>a</i> , Lateral aspect; <i>b</i> , oral aspect.				
„	4-7.— <i>Planispirina communis</i> , Seguenza,	×	20	196	
	Figs. 4 <i>a</i> , 5, 6. Lateral aspect; <i>b</i> , peripheral aspect.				
	Fig. 5. Abraded specimen, showing the Nummu- line lamination of the shell.				
	Fig. 7. Horizontal section of the shell.				
„	8.— <i>Lagena lavigata</i> , Reuss. sp.,	×	70	473	
	<i>a</i> , Lateral aspect; <i>b</i> , oral aspect.				
„	9.— <i>Lagena spiralis</i> , n. sp.,	×	120	468	
„	10.— <i>Lagena formosa</i> , var. <i>brevis</i> , nov.,	×	100	480	
	<i>a</i> , Lateral aspect; <i>b</i> , oral aspect.				
„	11.— <i>Lagena quadrangularis</i> , n. sp.,	×	100	483	
	<i>a</i> , Lateral aspect; <i>b</i> , oral aspect.				
„	12.— <i>Frondicularia archiaciana</i> , d'Orbigny,	×	60	520	
„	13.— <i>Vaginulina legumen</i> , var. <i>arquata</i> , nov.,	×	15	531	
„	14.— <i>Cristellaria wetherellii</i> , Rupert Jones, sp.,	×	18	537	
„	15, 16.— <i>Cristellaria compressa</i> , d'Orbigny,	×	10	538	
	Figs. 15, 16 <i>a</i> , Lateral aspect; <i>b</i> , front peripheral aspect.				
„	17.— <i>Cristellaria acutaureicularis</i> , Fichtel and Moll, sp.,	×	70	543	
	<i>a</i> , Lateral aspect; <i>b</i> , front peripheral aspect.				
„	18.— <i>Sagrina nodosa</i> , Parker and Jones,	×	70	583	
	<i>a</i> , Lateral aspect; <i>b</i> , oral aspect.				
„	19, 20.— <i>Globigerina pachyderma</i> , Ehrenberg, sp.,	×	50	600	
	Fig. 19. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.				
	Fig. 20. Horizontal section of the shell.				
„	21.— <i>Globigerina linnaeana</i> , d'Orbigny, sp.,			598	
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect. Copied from d'Orbigny.				

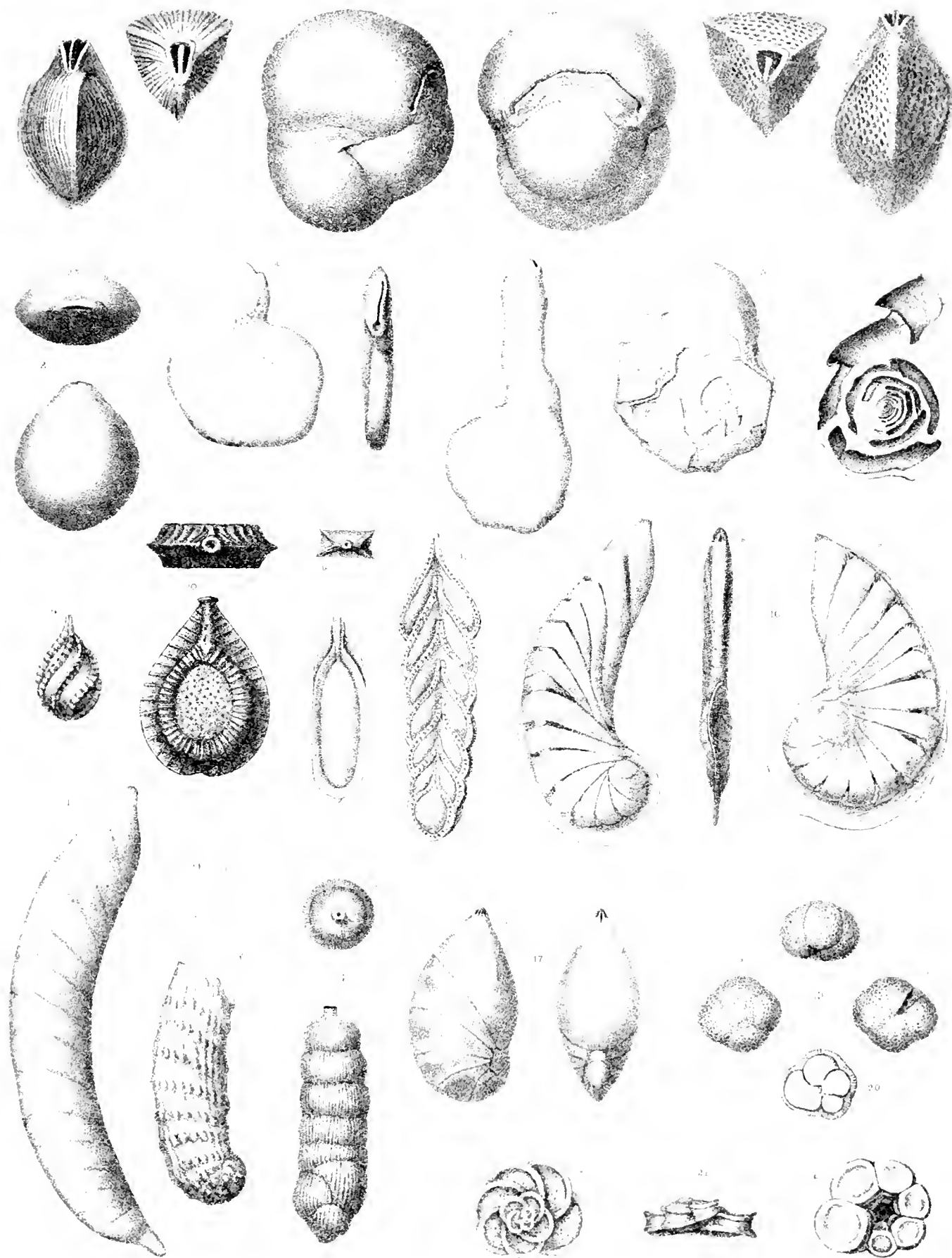


PLATE CXV.

PLATE CXV.

PULVINULINA.—ROTALIA, &C.

			Diam.	Page
Figure	1.— <i>Pulvinulina schreibersii</i> , d'Orbigny, n. sp.,	×	30	697
	<i>a</i> , Superior aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect.			
„	2.— <i>Pulvinulina vermiculata</i> , d'Orbigny, sp.,	×	30	687
	<i>a</i> , Superior aspect ; <i>b</i> , inferior aspect.			
„	3.— <i>Pulvinulina dispansa</i> , n. sp.,	×	14	687
	<i>a</i> , Superior aspect ; <i>b</i> , inferior aspect.			
„	4, 5.— <i>Truncatulina lobatula</i> , Walker and Jacob, sp.,	×	30	660
	Fig. 4. Adherent specimen enclosed in a nidus of sand.			
	Fig. 5. Similar specimen, the sand partially removed.			
„	6.— <i>Rotalia orbicularis</i> , d'Orbigny,	×	50	706
	<i>a</i> , Superior aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect.			
„	7.— <i>Rotalia schroeteriana</i> , Parker and Jones,	×	25	707
	<i>a</i> , Superior aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect.			
„	8.— <i>Rotalia pulchella</i> , d'Orbigny, sp.,	×	50	710
	<i>a</i> , Superior aspect ; <i>b</i> , inferior aspect.			
„	9.— <i>Nonionina boueana</i> , var. <i>armata</i> , nov.,	×	60	730
	<i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect.			

